

SEQUENCE LISTING

<110> Gaiger, Alexander
 McNeill, Patricia D.
 Smithgall, Molly
 Moulton, Gus
 Vedvick, Thomas S.
 Sleath, Paul R.
 Mossman, Sally
 Evans, Lawrence
 Spies, A. Gregory
 Boydston, Jeremy

<120> COMPOSITIONS AND METHODS FOR WT1
 SPECIFIC IMMUNOTHERAPY

<130> 210121.465C6

<140> US

<141> 2001-10-30

<160> 413

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 17

<212> PRT

<213> Homo sapien

<400> 1

Arg	Asp	Leu	Asn	Ala	Leu	Leu	Pro	Ala	Val	Pro	Ser	Leu	Gly	Gly	Gly
1			5						10					15	
Gly															

<210> 2

<211> 23

<212> PRT

<213> Homo sapien

<400> 2

Pro	Ser	Gln	Ala	Ser	Ser	Gly	Gln	Ala	Arg	Met	Phe	Pro	Asn	Ala	Pro
1			5						10					15	
Tyr	Leu	Pro	Ser	Cys	Leu	Glu									
			20												

<210> 3

<211> 23

<212> PRT

<213> Mus musculus

<400> 3

11002603-400001

Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala Pro
 1 5 10 15

Tyr Leu Pro Ser Cys Leu Glu
 20

<210> 4
 <211> 19
 <212> PRT
 <213> Homo sapien

<400> 4
 Gly Ala Thr Leu Lys Gly Val Ala Ala Gly Ser Ser Ser Ser Val Lys
 1 5 10 15
 Trp Thr Glu

<210> 5
 <211> 22
 <212> DNA
 <213> Homo sapien

<400> 5
 gagagtcaga cttgaaagca gt 22

<210> 6
 <211> 20
 <212> DNA
 <213> Homo sapien

<400> 6
 ctgagcctca gcaaatgggc 20

<210> 7
 <211> 27
 <212> DNA
 <213> Homo sapien

<400> 7
 gagcatgcat gggctccgac gtgcggg 27

<210> 8
 <211> 25
 <212> DNA
 <213> Homo sapien

<400> 8
 ggggtaccca ctgaacggtc cccga 25

<210> 9
 <211> 18
 <212> DNA
 <213> Mus musculus

<400> 9

10002603 1030001

tccgagccgc acctcatg

18

<210> 10
 <211> 18
 <212> DNA
 <213> Mus musculus

<400> 10
 gcctgggatg ctggactg

18

<210> 11
 <211> 27
 <212> DNA
 <213> Mus musculus

<400> 11
 gagcatgcga tgggtccga cgtgcgg

27

<210> 12
 <211> 29
 <212> DNA
 <213> Mus musculus

<400> 12
 ggggtacctc aaagcggcac gtggagttt

29

<210> 13
 <211> 17
 <212> PRT
 <213> Mus musculus

<400> 13
 Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Ser Ser Leu Gly Gly Gly
 1 5 10 15
 Gly

<210> 14
 <211> 19
 <212> PRT
 <213> Mus musculus

<400> 14
 Gly Ala Thr Leu Lys Gly Met Ala Ala Gly Ser Ser Ser Ser Val Lys
 1 5 10 15
 Trp Thr Glu

<210> 15
 <211> 15
 <212> PRT
 <213> Homo sapien

<400> 15

10002603.103001

Arg Ile His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg
1 5 10 15

<210> 16
<211> 15
<212> PRT
<213> Mus musculus

<400> 16
Arg Ile His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg
1 5 10 15

<210> 17
<211> 14
<212> PRT
<213> Mus musculus

<400> 17
Val Arg Arg Val Ser Gly Val Ala Pro Thr Leu Val Arg Ser
1 5 10

<210> 18
<211> 14
<212> PRT
<213> Homo sapien

<400> 18
Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu Val Arg Ser
1 5 10

<210> 19
<211> 15
<212> PRT
<213> Homo sapien

<400> 19
Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His
1 5 10 15

<210> 20
<211> 15
<212> PRT
<213> Mus musculus

<400> 20
Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His
1 5 10 15

<210> 21
<211> 21
<212> DNA
<213> Mus musculus

<400> 21

10002603-1000000

cccaggctgc aataagagat a 21
 <210> 22
 <211> 21
 <212> DNA
 <213> Mus musculus
 <400> 22
 atgttgtgat ggcggaccaa t 21
 <210> 23
 <211> 20
 <212> DNA
 <213> Homo sapien
 <400> 23
 gtggggcgcc ccaggcacca 20
 <210> 24
 <211> 24
 <212> DNA
 <213> Homo sapien
 <400> 24
 gtccttaatg ctacgcacga ttcc 24
 <210> 25
 <211> 21
 <212> DNA
 <213> Homo sapien
 <400> 25
 ggcattctgag accagtgaga a 21
 <210> 26
 <211> 21
 <212> DNA
 <213> Homo sapien
 <400> 26
 gctgtccac ttacagatgc a 21
 <210> 27
 <211> 21
 <212> DNA
 <213> Homo sapien
 <400> 27
 tcaaagcgcc agctggagtt t 21
 <210> 28
 <211> 9
 <212> PRT
 <213> Homo sapien

10002503.103001

<400> 28
Ala Ala Gly Ser Ser Ser Val Lys
1 5

<210> 29
<211> 9
<212> PRT
<213> Homo sapien

<400> 29
Ala Ala Gln Phe Pro Asn His Ser Phe
1 5

<210> 30
<211> 9
<212> PRT
<213> Homo sapien

<400> 30
Ala Glu Pro His Glu Glu Gln Cys Leu
1 5

<210> 31
<211> 9
<212> PRT
<213> Homo sapien

<400> 31
Ala Gly Ala Cys Arg Tyr Gly Pro Phe
1 5

<210> 32
<211> 9
<212> PRT
<213> Homo sapien

<400> 32
Ala Gly Ser Ser Ser Val Lys Trp
1 5

<210> 33
<211> 9
<212> PRT
<213> Homo sapien

<400> 33
Ala Ile Arg Asn Gln Gly Tyr Ser Thr
1 5

<210> 34
<211> 9
<212> PRT
<213> Homo sapien

10002603-105001

<400> 34
Ala Leu Leu Pro Ala Val Pro Ser Leu
1 5

<210> 35
<211> 9
<212> PRT
<213> Homo sapien

<400> 35
Ala Leu Leu Pro Ala Val Ser Ser Leu
1 5

<210> 36
<211> 9
<212> PRT
<213> Homo sapien

<400> 36
Ala Gln Phe Pro Asn His Ser Phe Lys
1 5

<210> 37
<211> 9
<212> PRT
<213> Homo sapien

<400> 37
Ala Gln Trp Ala Pro Val Leu Asp Phe
1 5

<210> 38
<211> 9
<212> PRT
<213> Homo sapien

<400> 38
Ala Arg Met Phe Pro Asn Ala Pro Tyr
1 5

<210> 39
<211> 9
<212> PRT
<213> Homo sapien

<400> 39
Ala Arg Ser Asp Glu Leu Val Arg His
1 5

<210> 40
<211> 9
<212> PRT
<213> Homo sapien

10002603 103001

<400> 40

<211> 9

<400> 41

<211> 9

<400> 42

<211> 9

<400> 43

<211> 9

<400> 44

<211> 9

<400> 45

<211> 9

<212> PRT

<213> Homo sapien

<400> 46

<210> 47

<211> 9

<212> PRT

<213> Homo sapien

<400> 47

<210> 48

<211> 9

<212> PRT

<213> Homo sapien

<400> 48

<210> 49

<211> 9

<212> PRT

<213> Homo sapien

<400> 49

<210> 50

<211> 9

<212> PRT

<213> Homo sapien

<400> 50

<210> 51

<211> 9

<212> PRT

<213> Homo sapien

<400> 51

<210> 52

<211> 9

<212> PRT

<213> Homo sapien

<400> 52

<210> 53

<211> 9

<212> PRT

<213> Homo sapien

<400> 53

<210> 54

<211> 9

<212> PRT

<213> Homo sapien

<400> 54

<210> 55

<211> 9

<212> PRT

<213> Homo sapien

<400> 55

<210> 56

$\langle 211 \rangle$ 9

<212> PRT

<213> Homo sapien

<400> 56

<210> 57

<211> 9

<212> PRT

<213> Homo sapien

<400> 57

<210> 58

<211> 9

<212> PRT

<213> Homo sapien

<400> 58
 Asp Leu Asn Ala Leu Leu Pro Ala Val
 1 5

<210> 59
 <211> 9
 <212> PRT
 <213> Homo sapien

<400> 59
 Asp Pro Met Gly Gln Gln Gly Ser Leu
 1 5

<210> 60
 <211> 9
 <212> PRT
 <213> Homo sapien

<400> 60
 Asp Gln Leu Lys Arg His Gln Arg Arg
 1 5

<210> 61
 <211> 9
 <212> PRT
 <213> Homo sapien

<400> 61
 Asp Ser Cys Thr Gly Ser Gln Ala Leu
 1 5

<210> 62
 <211> 9
 <212> PRT
 <213> Homo sapien

<400> 62
 Asp Val Arg Asp Leu Asn Ala Leu Leu
 1 5

<210> 63
 <211> 9
 <212> PRT
 <213> Homo sapien

<400> 63
 Asp Val Arg Arg Val Pro Gly Val Ala
 1 5

<210> 64
 <211> 9
 <212> PRT
 <213> Homo sapien

1000505-103001

<400> 64
Glu Asp Pro Met Gly Gln Gln Gly Ser
1 5

<210> 65
<211> 9
<212> PRT
<213> Homo sapien

<400> 65
Glu Glu Gln Cys Leu Ser Ala Phe Thr
1 5

<210> 66
<211> 9
<212> PRT
<213> Homo sapien

<400> 66
Glu Lys Pro Tyr Gln Cys Asp Phe Lys
1 5

<210> 67
<211> 9
<212> PRT
<213> Homo sapien

<400> 67
Glu Lys Arg Pro Phe Met Cys Ala Tyr
1 5

<210> 68
<211> 9
<212> PRT
<213> Homo sapien

<400> 68
Glu Pro His Glu Glu Gln Cys Leu Ser
1 5

<210> 69
<211> 9
<212> PRT
<213> Homo sapien

<400> 69
Glu Gln Cys Leu Ser Ala Phe Thr Val
1 5

<210> 70
<211> 9
<212> PRT
<213> Homo sapien

1000260-103001

<400> 70
Glu Ser Asp Asn His Thr Ala Pro Ile
1 5

<210> 71
<211> 9
<212> PRT
<213> Homo sapien

<400> 71
Glu Ser Asp Asn His Thr Thr Pro Ile
1 5

<210> 72
<211> 9
<212> PRT
<213> Homo sapien

<400> 72
Glu Ser Gln Pro Ala Ile Arg Asn Gln
1 5

<210> 73
<211> 9
<212> PRT
<213> Homo sapien

<400> 73
Glu Thr Ser Glu Lys Arg Pro Phe Met
1 5

<210> 74
<211> 9
<212> PRT
<213> Homo sapien

<400> 74
Phe Ala Pro Pro Gly Ala Ser Ala Tyr
1 5

<210> 75
<211> 9
<212> PRT
<213> Homo sapien

<400> 75
Phe Ala Arg Ser Asp Glu Leu Val Arg
1 5

<210> 76
<211> 9
<212> PRT
<213> Homo sapien

10002603.103001

<400> 76
Phe Gly Pro Pro Pro Pro Ser Gln Ala
1 5

<210> 77
<211> 9
<212> PRT
<213> Homo sapien

<400> 77
Phe Lys Asp Cys Glu Arg Arg Phe Ser
1 5

<210> 78
<211> 9
<212> PRT
<213> Homo sapien

<400> 78
Phe Lys Leu Ser His Leu Gln Met His
1 5

<210> 79
<211> 9
<212> PRT
<213> Homo sapien

<400> 79
Phe Pro Asn Ala Pro Tyr Leu Pro Ser
1 5

<210> 80
<211> 9
<212> PRT
<213> Homo sapien

<400> 80
Phe Gln Cys Lys Thr Cys Gln Arg Lys
1 5

<210> 81
<211> 9
<212> PRT
<213> Homo sapien

<400> 81
Phe Arg Gly Ile Gln Asp Val Arg Arg
1 5

<210> 82
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 82
Phe Ser Gly Gln Phe Thr Gly Thr Ala
1 5

<210> 83
<211> 9
<212> PRT
<213> Homo sapien

<400> 83
Phe Ser Arg Ser Asp Gln Leu Lys Arg
1 5

<210> 84
<211> 9
<212> PRT
<213> Homo sapien

<400> 84
Phe Thr Gly Thr Ala Gly Ala Cys Arg
1 5

<210> 85
<211> 9
<212> PRT
<213> Homo sapien

<400> 85
Phe Thr Val His Phe Ser Gly Gln Phe
1 5

<210> 86
<211> 9
<212> PRT
<213> Homo sapien

<400> 86
Gly Ala Ala Gln Trp Ala Pro Val Leu
1 5

<210> 87
<211> 9
<212> PRT
<213> Homo sapien

<400> 87
Gly Ala Glu Pro His Glu Glu Gln Cys
1 5

<210> 88
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 88

<210> 89

<400> 89

<210> 90

<400> 90

<210> 91

<400> 91

<210> 92

<400> 92

<210> 93

<400> 93

<210> 94

<211>	9
<212>	PRT

<213> Homo sapien

<400> 94
Gly His Thr Pro Ser His His Ala Ala
1 5

<210> 95
<211> 9
<212> PRT
<213> Homo sapien

<400> 95
Gly Lys Thr Ser Glu Lys Pro Phe Ser
1 5

<210> 96
<211> 9
<212> PRT
<213> Homo sapien

<400> 96
Gly Pro Phe Gly Pro Pro Pro Pro Ser
1 5

<210> 97
<211> 9
<212> PRT
<213> Homo sapien

<400> 97
Gly Pro Pro Pro Pro Ser Gln Ala Ser
1 5

<210> 98
<211> 9
<212> PRT
<213> Homo sapien

<400> 98
Gly Gln Ala Arg Met Phe Pro Asn Ala
1 5

<210> 99
<211> 9
<212> PRT
<213> Homo sapien

<400> 99
Gly Gln Phe Thr Gly Thr Ala Gly Ala
1 5

<210> 100
<211> 9
<212> PRT
<213> Homo sapien

10002503.103001

<400> 100
Gly Gln Ser Asn His Ser Thr Gly Tyr
1 5

<210> 101
<211> 9
<212> PRT
<213> Homo sapien

<400> 101
Gly Ser Asp Val Arg Asp Leu Asn Ala
1 5

<210> 102
<211> 9
<212> PRT
<213> Homo sapien

<400> 102
Gly Ser Gln Ala Leu Leu Leu Arg Thr
1 5

<210> 103
<211> 9
<212> PRT
<213> Homo sapien

<400> 103
Gly Val Phe Arg Gly Ile Gln Asp Val
1 5

<210> 104
<211> 9
<212> PRT
<213> Homo sapien

<400> 104
Gly Val Lys Pro Phe Gln Cys Lys Thr
1 5

<210> 105
<211> 9
<212> PRT
<213> Homo sapien

<400> 105
Gly Tyr Glu Ser Asp Asn His Thr Ala
1 5

<210> 106
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 106
Gly Tyr Glu Ser Asp Asn His Thr Thr
1 5

<210> 107
<211> 9
<212> PRT
<213> Homo sapien

<400> 107
His Glu Glu Gln Cys Leu Ser Ala Phe
1 5

<210> 108
<211> 9
<212> PRT
<213> Homo sapien

<400> 108
His His Asn Met His Gln Arg Asn Met
1 5

<210> 109
<211> 9
<212> PRT
<213> Homo sapien

<400> 109
His Gln Arg Arg His Thr Gly Val Lys
1 5

<210> 110
<211> 9
<212> PRT
<213> Homo sapien

<400> 110
His Ser Phe Lys His Glu Asp Pro Met
1 5

<210> 111
<211> 9
<212> PRT
<213> Homo sapien

<400> 111
His Ser Arg Lys His Thr Gly Glu Lys
1 5

<210> 112
<211> 9
<212> PRT
<213> Homo sapien

10002600 105001

<400> 112
His Thr Gly Glu Lys Pro Tyr Gln Cys
1 5

<210> 113
<211> 9
<212> PRT
<213> Homo sapien

<400> 113
His Thr His Gly Val Phe Arg Gly Ile
1 5

<210> 114
<211> 9
<212> PRT
<213> Homo sapien

<400> 114
His Thr Arg Thr His Thr Gly Lys Thr
1 5

<210> 115
<211> 9
<212> PRT
<213> Homo sapien

<400> 115
His Thr Thr Pro Ile Leu Cys Gly Ala
1 5

<210> 116
<211> 9
<212> PRT
<213> Homo sapien

<400> 116
Ile Leu Cys Gly Ala Gln Tyr Arg Ile
1 5

<210> 117
<211> 9
<212> PRT
<213> Homo sapien

<400> 117
Ile Arg Asn Gln Gly Tyr Ser Thr Val
1 5

<210> 118
<211> 9
<212> PRT
<213> Homo sapien

10002503-103001

<400> 118
Lys Asp Cys Glu Arg Arg Phe Ser Arg
1 5

<210> 119
<211> 9
<212> PRT
<213> Homo sapien

<400> 119
Lys Phe Ala Arg Ser Asp Glu Leu Val
1 5

<210> 120
<211> 9
<212> PRT
<213> Homo sapien

<400> 120
Lys Phe Ser Arg Ser Asp His Leu Lys
1 5

<210> 121
<211> 9
<212> PRT
<213> Homo sapien

<400> 121
Lys His Glu Asp Pro Met Gly Gln Gln
1 5

<210> 122
<211> 9
<212> PRT
<213> Homo sapien

<400> 122
Lys Lys Phe Ala Arg Ser Asp Glu Leu
1 5

<210> 123
<211> 9
<212> PRT
<213> Homo sapien

<400> 123
Lys Pro Phe Ser Cys Arg Trp Pro Ser
1 5

<210> 124
<211> 9
<212> PRT
<213> Homo sapien

10002603-103004

<400> 124
Lys Pro Tyr Gln Cys Asp Phe Lys Asp
1 5

<210> 125
<211> 9
<212> PRT
<213> Homo sapien

<400> 125
Lys Gln Glu Pro Ser Trp Gly Gly Ala
1 5

<210> 126
<211> 9
<212> PRT
<213> Homo sapien

<400> 126
Lys Arg His Gln Arg Arg His Thr Gly
1 5

<210> 127
<211> 9
<212> PRT
<213> Homo sapien

<400> 127
Lys Arg Tyr Phe Lys Leu Ser His Leu
1 5

<210> 128
<211> 9
<212> PRT
<213> Homo sapien

<400> 128
Lys Thr Cys Gln Arg Lys Phe Ser Arg
1 5

<210> 129
<211> 9
<212> PRT
<213> Homo sapien

<400> 129
Lys Thr Ser Glu Lys Pro Phe Ser Cys
1 5

<210> 130
<211> 9
<212> PRT
<213> Homo sapien

10002603.103001

<400> 130
Leu Asp Phe Ala Pro Pro Gly Ala Ser
1 5

<210> 131
<211> 9
<212> PRT
<213> Homo sapien

<400> 131
Leu Glu Cys Met Thr Trp Asn Gln Met
1 5

<210> 132
<211> 9
<212> PRT
<213> Homo sapien

<400> 132
Leu Glu Ser Gln Pro Ala Ile Arg Asn
1 5

<210> 133
<211> 9
<212> PRT
<213> Homo sapien

<400> 133
Leu Gly Ala Thr Leu Lys Gly Val Ala
1 5

<210> 134
<211> 9
<212> PRT
<213> Homo sapien

<400> 134
Leu Gly Gly Gly Gly Gly Cys Ala Leu
1 5

<210> 135
<211> 9
<212> PRT
<213> Homo sapien

<400> 135
Leu Lys Gly Val Ala Ala Gly Ser Ser
1 5

<210> 136
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 136

<210> 137

<211> 9

<212> PRT

<213> Homo sapien

<400> 137

<210> 138

<211> 9

<212> PRT

<213> Homo sapien

<400> 138

<210> 139

<211> 9

<212> PRT

<213> Homo sapien

<400> 139

<210> 140

<211> 9

<212> PRT

<213> Homo sapien

<400> 14C

<210> 141

<211> 9

<212> PRT

<213> Homo sapien

<400> 141

<210> 142

 $\langle 211 \rangle$ $\langle 212 \rangle$ PR²

<213> Homo sapien

<400> 142
Met Cys Ala Tyr Pro Gly Cys Asn Lys
1 5

<210> 143
<211> 9
<212> PRT
<213> Homo sapien

<400> 143
Met His Gln Arg Asn Met Thr Lys Leu
1 5

<210> 144
<211> 9
<212> PRT
<213> Homo sapien

<400> 144
Asn Ala Pro Tyr Leu Pro Ser Cys Leu
1 5

<210> 145
<211> 9
<212> PRT
<213> Homo sapien

<400> 145
Asn Lys Arg Tyr Phe Lys Leu Ser His
1 5

<210> 146
<211> 9
<212> PRT
<213> Homo sapien

<400> 146
Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5

<210> 147
<211> 9
<212> PRT
<213> Homo sapien

<400> 147
Asn Leu Tyr Gln Met Thr Ser Gln Leu
1 5

<210> 148
<211> 9
<212> PRT
<213> Homo sapien

<400> 148

<210> 149

<211> 9

<212> PRT

<213> Homo sapien

<400> 149

<210> 150

<211> 9

<212> PRT

<213> Homo sapien

<400> 150

<210> 151

<211> 9

<212> PRT

<213> Homo sapien

<400> 151

<210> 152

<211> 9

<212> PRT

<213> Homo sapien

<400> 152

<210> 153

<211> 9

<212> PRT

<213> Homo sapien

<400> 15:

<210> 154

<211> 9

<212> PRT

<213> Homo sapien

<400> 154
Pro His Glu Glu Gln Cys Leu Ser Ala
1 5

<210> 155
<211> 9
<212> PRT
<213> Homo sapien

<400> 155
Pro Ile Leu Cys Gly Ala Gln Tyr Arg
1 5

<210> 156
<211> 9
<212> PRT
<213> Homo sapien

<400> 156
Pro Pro Pro Pro His Ser Phe Ile Lys
1 5

<210> 157
<211> 9
<212> PRT
<213> Homo sapien

<400> 157
Pro Pro Pro Pro Pro His Ser Phe Ile
1 5

<210> 158
<211> 9
<212> PRT
<213> Homo sapien

<400> 158
Pro Pro Pro Pro Pro Pro His Ser Phe
1 5

<210> 159
<211> 9
<212> PRT
<213> Homo sapien

<400> 159
Pro Ser Cys Gln Lys Lys Phe Ala Arg
1 5

<210> 160
<211> 9
<212> PRT
<213> Homo sapien

1006563-103001

<400> 160
Gln Ala Leu Leu Leu Arg Thr Pro Tyr
1 5

<210> 161
<211> 9
<212> PRT
<213> Homo sapien

<400> 161
Gln Ala Ser Ser Gly Gln Ala Arg Met
1 5

<210> 162
<211> 9
<212> PRT
<213> Homo sapien

<400> 162
Gln Cys Asp Phe Lys Asp Cys Glu Arg
1 5

<210> 163
<211> 9
<212> PRT
<213> Homo sapien

<400> 163
Gln Cys Lys Thr Cys Gln Arg Lys Phe
1 5

<210> 164
<211> 9
<212> PRT
<213> Homo sapien

<400> 164
Gln Asp Val Arg Arg Val Pro Gly Val
1 5

<210> 165
<211> 9
<212> PRT
<213> Homo sapien

<400> 165
Gln Phe Thr Gly Thr Ala Gly Ala Cys
1 5

<210> 166
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 166

<211> 9

<212> PRT

<213> Homo sapien

<400> 167

<210> 168

<211> 9

<212> PRT

<213> Homo sapien

<400> 168

<210> 169

<211> 9

<212> PRT

<213> Homo sapien

<400> 169

<210> 170

<211> 9

<212> PRT

<213> Homo sapien

<400> 170

<210> 171

<211> 9

<212> PRT

<213> Homo sapien

<400> 171

<210> 172

<211> 9

<212> PRT

<213> Homo sapien

<400> 172

<210> 173

<400> 173

<210> 174

<400> 174

<210> 175

<400> 175

<210> 176

<400> 170

<210> 17'

<400> 17

<210> 17

<212> PR

<213> Homo sapien

<400> 178
Arg Phe Ser Arg Ser Asp Gln Leu Lys
1 5

<210> 179
<211> 9
<212> PRT
<213> Homo sapien

<400> 179
Arg Gly Ile Gln Asp Val Arg Arg Val
1 5

<210> 180
<211> 9
<212> PRT
<213> Homo sapien

<400> 180
Arg His His Asn Met His Gln Arg Asn
1 5

<210> 181
<211> 9
<212> PRT
<213> Homo sapien

<400> 181
Arg His Gln Arg Arg His Thr Gly Val
1 5

<210> 182
<211> 9
<212> PRT
<213> Homo sapien

<400> 182
Arg Ile His Thr His Gly Val Phe Arg
1 5

<210> 183
<211> 9
<212> PRT
<213> Homo sapien

<400> 183
Arg Lys Phe Ser Arg Ser Asp His Leu
1 5

<210> 184
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 184
Arg Lys His Thr Gly Glu Lys Pro Tyr
1 5

<210> 185
<211> 9
<212> PRT
<213> Homo sapien

<400> 185
Arg Met Phe Pro Asn Ala Pro Tyr Leu
1 5

<210> 186
<211> 9
<212> PRT
<213> Homo sapien

<400> 186
Arg Asn Met Thr Lys Leu Gln Leu Ala
1 5

<210> 187
<211> 9
<212> PRT
<213> Homo sapien

<400> 187
Arg Arg Phe Ser Arg Ser Asp Gln Leu
1 5

<210> 188
<211> 9
<212> PRT
<213> Homo sapien

<400> 188
Arg Arg His Thr Gly Val Lys Pro Phe
1 5

<210> 189
<211> 9
<212> PRT
<213> Homo sapien

<400> 189
Arg Arg Val Pro Gly Val Ala Pro Thr
1 5

<210> 190
<211> 9
<212> PRT
<213> Homo sapien

1000603-103001

<400> 190
Arg Ser Ala Ser Glu Thr Ser Glu Lys
1 5

<210> 191
<211> 9
<212> PRT
<213> Homo sapien

<400> 191
Arg Ser Asp Glu Leu Val Arg His His
1 5

<210> 192
<211> 9
<212> PRT
<213> Homo sapien

<400> 192
Arg Ser Asp His Leu Lys Thr His Thr
1 5

<210> 193
<211> 9
<212> PRT
<213> Homo sapien

<400> 193
Arg Ser Asp Gln Leu Lys Arg His Gln
1 5

<210> 194
<211> 9
<212> PRT
<213> Homo sapien

<400> 194
Arg Thr Pro Tyr Ser Ser Asp Asn Leu
1 5

<210> 195
<211> 9
<212> PRT
<213> Homo sapien

<400> 195
Arg Val Pro Gly Val Ala Pro Thr Leu
1 5

<210> 196
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 196
Arg Trp Pro Ser Cys Gln Lys Lys Phe
1 5

<210> 197
<211> 9
<212> PRT
<213> Homo sapien

<400> 197
Ser Ala Ser Glu Thr Ser Glu Lys Arg
1 5

<210> 198
<211> 9
<212> PRT
<213> Homo sapien

<400> 198
Ser Cys Leu Glu Ser Gln Pro Ala Ile
1 5

<210> 199
<211> 9
<212> PRT
<213> Homo sapien

<400> 199
Ser Cys Leu Glu Ser Gln Pro Thr Ile
1 5

<210> 200
<211> 9
<212> PRT
<213> Homo sapien

<400> 200
Ser Cys Gln Lys Lys Phe Ala Arg Ser
1 5

<210> 201
<211> 9
<212> PRT
<213> Homo sapien

<400> 201
Ser Cys Arg Trp Pro Ser Cys Gln Lys
1 5

<210> 202
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 202
Ser Cys Thr Gly Ser Gln Ala Leu Leu
1 5

<210> 203
<211> 9
<212> PRT
<213> Homo sapien

<400> 203
Ser Asp Glu Leu Val Arg His His Asn
1 5

<210> 204
<211> 9
<212> PRT
<213> Homo sapien

<400> 204
Ser Asp Asn His Thr Thr Pro Ile Leu
1 5

<210> 205
<211> 9
<212> PRT
<213> Homo sapien

<400> 205
Ser Asp Asn Leu Tyr Gln Met Thr Ser
1 5

<210> 206
<211> 9
<212> PRT
<213> Homo sapien

<400> 206
Ser Asp Val Arg Asp Leu Asn Ala Leu
1 5

<210> 207
<211> 9
<212> PRT
<213> Homo sapien

<400> 207
Ser Glu Lys Pro Phe Ser Cys Arg Trp
1 5

<210> 208
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 208
Ser Glu Lys Arg Pro Phe Met Cys Ala
1 5

<210> 209
<211> 9
<212> PRT
<213> Homo sapien

<400> 209
Ser Glu Thr Ser Glu Lys Arg Pro Phe
1 5

<210> 210
<211> 9
<212> PRT
<213> Homo sapien

<400> 210
Ser Phe Ile Lys Gln Glu Pro Ser Trp
1 5

<210> 211
<211> 9
<212> PRT
<213> Homo sapien

<400> 211
Ser Gly Ala Ala Gln Trp Ala Pro Val
1 5

<210> 212
<211> 9
<212> PRT
<213> Homo sapien

<400> 212
Ser Gly Gln Ala Arg Met Phe Pro Asn
1 5

<210> 213
<211> 9
<212> PRT
<213> Homo sapien

<400> 213
Ser His His Ala Ala Gln Phe Pro Asn
1 5

<210> 214
<211> 9
<212> PRT
<213> Homo sapien

10002603.103001

<400> 214
Ser Leu Gly Glu Gln Gln Tyr Ser Val
1 5

<210> 215
<211> 9
<212> PRT
<213> Homo sapien

<400> 215
Ser Leu Gly Gly Gly Gly Cys Ala
1 5

<210> 216
<211> 9
<212> PRT
<213> Homo sapien

<400> 216
Ser Gln Ala Ser Ser Gly Gln Ala Arg
1 5

<210> 217
<211> 9
<212> PRT
<213> Homo sapien

<400> 217
Ser Ser Asp Asn Leu Tyr Gln Met Thr
1 5

<210> 218
<211> 9
<212> PRT
<213> Homo sapien

<400> 218
Ser Val Pro Pro Pro Val Tyr Gly Cys
1 5

<210> 219
<211> 9
<212> PRT
<213> Homo sapien

<400> 219
Thr Cys Gln Arg Lys Phe Ser Arg Ser
1 5

<210> 220
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 220
Thr Asp Ser Cys Thr Gly Ser Gln Ala
1 5

<210> 221
<211> 9
<212> PRT
<213> Homo sapien

<400> 221
Thr Glu Gly Gln Ser Asn His Ser Thr
1 5

<210> 222
<211> 9
<212> PRT
<213> Homo sapien

<400> 222
Thr Gly Lys Thr Ser Glu Lys Pro Phe
1 5

<210> 223
<211> 9
<212> PRT
<213> Homo sapien

<400> 223
Thr Gly Ser Gln Ala Leu Leu Leu Arg
1 5

<210> 224
<211> 9
<212> PRT
<213> Homo sapien

<400> 224
Thr Gly Thr Ala Gly Ala Cys Arg Tyr
1 5

<210> 225
<211> 9
<212> PRT
<213> Homo sapien

<400> 225
Thr Gly Tyr Glu Ser Asp Asn His Thr
1 5

<210> 226
<211> 9
<212> PRT
<213> Homo sapien

1000000-1000000

<400> 226
Thr Leu Val Arg Ser Ala Ser Glu Thr
1 5

<210> 227
<211> 9
<212> PRT
<213> Homo sapien

<400> 227
Thr Pro Ile Leu Cys Gly Ala Gln Tyr
1 5

<210> 228
<211> 9
<212> PRT
<213> Homo sapien

<400> 228
Thr Pro Ser His His Ala Ala Gln Phe
1 5

<210> 229
<211> 9
<212> PRT
<213> Homo sapien

<400> 229
Thr Pro Ser Tyr Gly His Thr Pro Ser
1 5

<210> 230
<211> 9
<212> PRT
<213> Homo sapien

<400> 230
Thr Pro Thr Asp Ser Cys Thr Gly Ser
1 5

<210> 231
<211> 9
<212> PRT
<213> Homo sapien

<400> 231
Thr Pro Tyr Ser Ser Asp Asn Leu Tyr
1 5

<210> 232
<211> 9
<212> PRT
<213> Homo sapien

10002603.103001

<400> 232
Thr Ser Glu Lys Pro Phe Ser Cys Arg
1 5

<210> 233
<211> 9
<212> PRT
<213> Homo sapien

<400> 233
Thr Ser Glu Lys Arg Pro Phe Met Cys
1 5

<210> 234
<211> 9
<212> PRT
<213> Homo sapien

<400> 234
Thr Ser Gln Leu Glu Cys Met Thr Trp
1 5

<210> 235
<211> 9
<212> PRT
<213> Homo sapien

<400> 235
Thr Val His Phe Ser Gly Gln Phe Thr
1 5

<210> 236
<211> 9
<212> PRT
<213> Homo sapien

<400> 236
Val Ala Ala Gly Ser Ser Ser Ser Val
1 5

<210> 237
<211> 9
<212> PRT
<213> Homo sapien

<400> 237
Val Ala Pro Thr Leu Val Arg Ser Ala
1 5

<210> 238
<211> 9
<212> PRT
<213> Homo sapien

10002603-103001

<400> 238
Val Phe Arg Gly Ile Gln Asp Val Arg
1 5

<210> 239
<211> 9
<212> PRT
<213> Homo sapien

<400> 239
Val Lys Pro Phe Gln Cys Lys Thr Cys
1 5

<210> 240
<211> 9
<212> PRT
<213> Homo sapien

<400> 240
Val Lys Trp Thr Glu Gly Gln Ser Asn
1 5

<210> 241
<211> 9
<212> PRT
<213> Homo sapien

<400> 241
Val Leu Asp Phe Ala Pro Pro Gly Ala
1 5

<210> 242
<211> 9
<212> PRT
<213> Homo sapien

<400> 242
Val Pro Gly Val Ala Pro Thr Leu Val
1 5

<210> 243
<211> 9
<212> PRT
<213> Homo sapien

<400> 243
Val Arg His His Asn Met His Gln Arg
1 5

<210> 244
<211> 9
<212> PRT
<213> Homo sapien

10002503-103001

<400> 244
Val Thr Phe Asp Gly Thr Pro Ser Tyr
1 5

<210> 245
<211> 9
<212> PRT
<213> Homo sapien

<400> 245
Trp Asn Gln Met Asn Leu Gly Ala Thr
1 5

<210> 246
<211> 9
<212> PRT
<213> Homo sapien

<400> 246
Trp Pro Ser Cys Gln Lys Lys Phe Ala
1 5

<210> 247
<211> 9
<212> PRT
<213> Homo sapien

<400> 247
Trp Thr Glu Gly Gln Ser Asn His Ser
1 5

<210> 248
<211> 9
<212> PRT
<213> Homo sapien

<400> 248
Tyr Phe Lys Leu Ser His Leu Gln Met
1 5

<210> 249
<211> 9
<212> PRT
<213> Homo sapien

<400> 249
Tyr Gly His Thr Pro Ser His His Ala
1 5

<210> 250
<211> 9
<212> PRT
<213> Homo sapien

10002503.103001

<400> 250
Tyr Pro Gly Cys Asn Lys Arg Tyr Phe
1 5

<210> 251
<211> 9
<212> PRT
<213> Homo sapien

<400> 251
Tyr Gln Met Thr Ser Gln Leu Glu Cys
1 5

<210> 252
<211> 9
<212> PRT
<213> Homo sapien

<400> 252
Tyr Arg Ile His Thr His Gly Val Phe
1 5

<210> 253
<211> 9
<212> PRT
<213> Homo sapien

<400> 253
Tyr Ser Ser Asp Asn Leu Tyr Gln Met
1 5

<210> 254
<211> 9
<212> PRT
<213> Mus musculus

<400> 254
Ala Glu Pro His Glu Glu Gln Cys Leu
1 5

<210> 255
<211> 9
<212> PRT
<213> Mus musculus

<400> 255
Ala Leu Leu Pro Ala Val Ser Ser Leu
1 5

<210> 256
<211> 9
<212> PRT
<213> Mus musculus

10002500100001

<400> 256
Ala Tyr Gly Ser Leu Gly Gly Pro Ala
1 5

<210> 257
<211> 9
<212> PRT
<213> Mus musculus

<400> 257
Ala Tyr Pro Gly Cys Asn Lys Arg Tyr
1 5

<210> 258
<211> 9
<212> PRT
<213> Mus musculus

<400> 258
Cys Met Thr Trp Asn Gln Met Asn Leu
1 5

<210> 259
<211> 9
<212> PRT
<213> Mus musculus

<400> 259
Cys Thr Gly Ser Gln Ala Leu Leu Leu
1 5

<210> 260
<211> 9
<212> PRT
<213> Mus musculus

<400> 260
Asp Gly Ala Pro Ser Tyr Gly His Thr
1 5

<210> 261
<211> 9
<212> PRT
<213> Mus musculus

<400> 261
Asp Leu Asn Ala Leu Leu Pro Ala Val
1 5

<210> 262
<211> 9
<212> PRT
<213> Mus musculus

10002603-103001

<400> 262
Asp Pro Met Gly Gln Gln Gly Ser Leu
1 5

<210> 263
<211> 9
<212> PRT
<213> Mus musculus

<400> 263
Asp Ser Cys Thr Gly Ser Gln Ala Leu
1 5

<210> 264
<211> 9
<212> PRT
<213> Mus musculus

<400> 264
Asp Val Arg Asp Leu Asn Ala Leu Leu
1 5

<210> 265
<211> 9
<212> PRT
<213> Mus musculus

<400> 265
Glu Gln Cys Leu Ser Ala Phe Thr Leu
1 5

<210> 266
<211> 9
<212> PRT
<213> Mus musculus

<400> 266
Glu Ser Asp Asn His Thr Ala Pro Ile
1 5

<210> 267
<211> 9
<212> PRT
<213> Mus musculus

<400> 267
Phe Pro Asn Ala Pro Tyr Leu Pro Ser
1 5

<210> 268
<211> 9
<212> PRT
<213> Mus musculus

10002603.103001

<400> 268
Gly Cys Asn Lys Arg Tyr Phe Lys Leu
1 5

<210> 269
<211> 9
<212> PRT
<213> Mus musculus

<400> 269
Gly Gln Ala Arg Met Phe Pro Asn Ala
1 5

<210> 270
<211> 9
<212> PRT
<213> Mus musculus

<400> 270
Gly Val Phe Arg Gly Ile Gln Asp Val
1 5

<210> 271
<211> 9
<212> PRT
<213> Mus musculus

<400> 271
Gly Tyr Glu Ser Asp Asn His Thr Ala
1 5

<210> 272
<211> 9
<212> PRT
<213> Mus musculus

<400> 272
His Ser Phe Lys His Glu Asp Pro Met
1 5

<210> 273
<211> 9
<212> PRT
<213> Mus musculus

<400> 273
His Thr His Gly Val Phe Arg Gly Ile
1 5

<210> 274
<211> 9
<212> PRT
<213> Mus musculus

10002603 103001

<400> 274
Ile Leu Cys Gly Ala Gln Tyr Arg Ile
1 5

<210> 275
<211> 9
<212> PRT
<213> Mus musculus

<400> 275
Lys Phe Ala Arg Ser Asp Glu Leu Val
1 5

<210> 276
<211> 9
<212> PRT
<213> Mus musculus

<400> 276
Lys Arg Tyr Phe Lys Leu Ser His Leu
1 5

<210> 277
<211> 9
<212> PRT
<213> Mus musculus

<400> 277
Lys Thr Ser Glu Lys Pro Phe Ser Cys
1 5

<210> 278
<211> 9
<212> PRT
<213> Mus musculus

<400> 278
Leu Glu Cys Met Thr Trp Asn Gln Met
1 5

<210> 279
<211> 9
<212> PRT
<213> Mus musculus

<400> 279
Leu Gly Gly Gly Gly Gly Cys Gly Leu
1 5

<210> 280
<211> 9
<212> PRT
<213> Mus musculus

10002603-103001

<400> 280

<210> 281

<211> 9

<212> PRT

<213> Mus musculus

<400> 281

<210> 282

<211> 9

<212> PRT

<213> Mus musculus

<400> 282

<210> 283

<211> 9

<212> PRT

<213> Mus musculus

<400> 283

<210> 284

<211> 9

<212> PRT

<213> Mus musculus

<400> 284

<210> 285

<211> 9

<212> PRT

<213> Mus musculus

<400> 285

 $\langle 210 \rangle$ 2

<211> 9

<212> PRT

<213> Mus musculus

<400> 286
Asn Gln Met Asn Leu Gly Ala Thr Leu
1 5

<210> 287
<211> 9
<212> PRT
<213> Mus musculus

<400> 287
Pro Gly Ala Ser Ala Tyr Gly Ser Leu
1 5

<210> 288
<211> 9
<212> PRT
<213> Mus musculus

<400> 288
Gln Ala Ser Ser Gly Gln Ala Arg Met
1 5

<210> 289
<211> 9
<212> PRT
<213> Mus musculus

<400> 289
Gln Met Thr Ser Gln Leu Glu Cys Met
1 5

<210> 290
<211> 9
<212> PRT
<213> Mus musculus

<400> 290
Gln Gln Tyr Ser Val Pro Pro Pro Val
1 5

<210> 291
<211> 9
<212> PRT
<213> Mus musculus

<400> 291
Gln Tyr Arg Ile His Thr His Gly Val
1 5

<210> 292
<211> 9
<212> PRT
<213> Mus musculus

1000200-000000

<400> 292
Gln Tyr Ser Val Pro Pro Pro Val Tyr
1 5

<210> 293
<211> 9
<212> PRT
<213> Mus musculus

<400> 293
Arg Met Phe Pro Asn Ala Pro Tyr Leu
1 5

<210> 294
<211> 9
<212> PRT
<213> Mus musculus

<400> 294
Arg Thr Pro Tyr Ser Ser Asp Asn Leu
1 5

<210> 295
<211> 9
<212> PRT
<213> Mus musculus

<400> 295
Arg Val Ser Gly Val Ala Pro Thr Leu
1 5

<210> 296
<211> 9
<212> PRT
<213> Mus musculus

<400> 296
Ser Cys Leu Glu Ser Gln Pro Thr Ile
1 5

<210> 297
<211> 9
<212> PRT
<213> Mus musculus

<400> 297
Ser Cys Gln Lys Lys Phe Ala Arg Ser
1 5

<210> 298
<211> 9
<212> PRT
<213> Mus musculus

100060.103001

<400> 298
Ser Asp Val Arg Asp Leu Asn Ala Leu
1 5

<210> 299
<211> 9
<212> PRT
<213> Mus musculus

<400> 299
Ser Leu Gly Glu Gln Gln Tyr Ser Val
1 5

<210> 300
<211> 9
<212> PRT
<213> Mus musculus

<400> 300
Thr Cys Gln Arg Lys Phe Ser Arg Ser
1 5

<210> 301
<211> 9
<212> PRT
<213> Mus musculus

<400> 301
Thr Glu Gly Gln Ser Asn His Gly Ile
1 5

<210> 302
<211> 9
<212> PRT
<213> Mus musculus

<400> 302
Thr Leu His Phe Ser Gly Gln Phe Thr
1 5

<210> 303
<211> 9
<212> PRT
<213> Mus musculus

<400> 303
Thr Leu Val Arg Ser Ala Ser Glu Thr
1 5

<210> 304
<211> 9
<212> PRT
<213> Mus musculus

10002603-103007

<400> 304
Val Leu Asp Phe Ala Pro Pro Gly Ala
1 5

<210> 305
<211> 9
<212> PRT
<213> Mus musculus

<400> 305
Trp Asn Gln Met Asn Leu Gly Ala Thr
1 5

<210> 306
<211> 9
<212> PRT
<213> Mus musculus

<400> 306
Tyr Phe Lys Leu Ser His Leu Gln Met
1 5

<210> 307
<211> 9
<212> PRT
<213> Mus musculus

<400> 307
Tyr Gln Met Thr Ser Gln Leu Glu Cys
1 5

<210> 308
<211> 9
<212> PRT
<213> Mus musculus

<400> 308
Tyr Ser Ser Asp Asn Leu Tyr Gln Met
1 5

<210> 309
<211> 6
<212> PRT
<213> Homo sapien

<400> 309
Gly Ala Ala Gln Trp Ala
1 5

<210> 310
<211> 12
<212> PRT
<213> Homo sapien

10012603-103001

<400> 310
Ala Ser Ala Tyr Gly Ser Leu Gly Gly Pro Ala Pro
1 5 10

<210> 311
<211> 15
<212> PRT
<213> Homo sapien

<400> 311
Ala Phe Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr Ala Gly
1 5 10 15

<210> 312
<211> 5
<212> PRT
<213> Homo sapien

<400> 312
His Ala Ala Gln Phe
1 5

<210> 313
<211> 32
<212> PRT
<213> Homo sapien

<400> 313
Cys His Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu Leu Leu
1 5 10 15
Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser Gln Leu
20 25 30

<210> 314
<211> 32
<212> PRT
<213> Homo sapien

<400> 314
Arg Ile His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg
1 5 10 15
Val Pro Gly Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser
20 25 30

<210> 315
<211> 4
<212> PRT
<213> Homo sapien

<400> 315
Arg Tyr Phe Lys
1

10002603.103004

<210> 316
 <211> 14
 <212> PRT
 <213> Homo sapien

<400> 316
 Glu Arg Arg Phe Ser Arg Ser Asp Gln Leu Lys Arg His Gln
 1 5 10

<210> 317
 <211> 22
 <212> PRT
 <213> Homo sapien

<400> 317
 Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr
 1 5 10 15
 His Thr Gly Lys Thr Ser
 20

<210> 318
 <211> 21
 <212> PRT
 <213> Homo sapien

<400> 318
 Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His Asn
 1 5 10 15
 Met His Gln Arg Asn
 20

<210> 319
 <211> 449
 <212> PRT
 <213> Homo sapien

<400> 319
 Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro
 1 5 10 15
 Ser Leu Gly Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala
 20 25 30
 Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr
 35 40 45
 Gly Ser Leu Gly Gly Pro Ala Pro Pro Ala Pro Pro Pro Pro
 50 55 60
 Pro Pro Pro Pro His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly
 65 70 75 80
 Ala Glu Pro His Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe
 85 90 95
 Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe
 100 105 110
 Gly Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe
 115 120 125
 Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile

10002603-103001

```
<210> 320
<211> 449
<212> PRT
<213> Mus musculus
```

															<400> 320														
Met	Gly	Ser	Asp	Val	Arg	Asp	Leu	Asn	Ala	Leu	Leu	Pro	Ala	Val	Ser														
1				5				10						15															
Ser	Leu	Gly	Gly	Gly	Gly	Gly	Cys	Gly	Leu	Pro	Val	Ser	Gly	Ala	Ala														
			20				25						30																
Gln	Trp	Ala	Pro	Val	Leu	Asp	Phe	Ala	Pro	Pro	Gly	Ala	Ser	Ala	Tyr														
			35				40						45																

<210> 321

<211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 321
 Pro Ser Gln Ala Ser Ser Gly Gln Ala
 1 5

<210> 322
 <211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 322
 Ser Ser Gly Gln Ala Arg Met Phe Pro
 1 5

<210> 323
 <211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 323
 Gln Ala Arg Met Phe Pro Asn Ala Pro
 1 5

<210> 324
 <211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 324
 Met Phe Pro Asn Ala Pro Tyr Leu Pro
 1 5

<210> 325
 <211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 325
 Pro Asn Ala Pro Tyr Leu Pro Ser Cys
 1 5

<210> 326
 <211> 9
 <212> PRT
 <213> Homo sapien and Mus musculus

<400> 326
 Ala Pro Tyr Leu Pro Ser Cys Leu Glu
 1 5

<210> 327
 <211> 1029
 <212> DNA
 <213> Homo sapiens

<400> 327
 atgcagcatc accaccatca ccacatgagc gataaaatta ttcacctgac tgacgacagt 60
 tttagacagg atgtactcaa agcggacggg gcgatctctg tcgatttctg ggcagagtgg 120
 tgcggtccgt gcaaaatgat cgccccgatt ctggatgaaa tcgctgacga atatcagggc 180
 aaactgacgg ttgcaaaact gaacatcgat caaaaccctg gcaactgcgc gaaatattggc 240
 atccgtggta tcccgactct gctgctgttc aaaaacgggt aagtggcgcc aaccaaaagt 300
 ggtgcactgt ctaaaaggta gttgaaagag ttctcgacg ctaacctggc cggttctgg 360
 tctggccata tgcagcatca ccaccatcac cactgtctta tcgaaggtcg tctagctct 420
 ggtggcagcg gtctggttcc gcgtggtagc tctggttcgg gggacgacga cgacaaatct 480
 agtaggcaca gcacagggtta cgagagcgat aaccacacaa cgcccatcct ctgcggagcc 540
 caatacagaa tacacacgca cggtgtcttc agaggcattc aggatgtgcg acgtgtgcct 600
 ggaagtaccc cgactcttgt acggtcgcca tctgagacca gtgagaaacg ccccttcagt 660
 tgtgcttacc cagggtgcaa taagagatat ttaagctgt cccacttaca gatgcacagc 720
 aggaagcaca ctggtgagaa accataccag tgtgacttca aggactgtga acgaaggttt 780
 ttctgttcag accagctcaa aagacaccaa aggagacata caggtgtgaa accattccag 840
 tgtaaaaact gtacagcaaaa gtctctcccg tccgaccaac tgaagaccca cccaggaact 900
 catcacagtg aaaaagccctt cagctgtcgg tggccaagtt gtcagaaaaa gtttgcgccg 960
 tcagatgaat tagtccgcca tcacaacatg catcagagaa acatgaccaa actccagctg 1020
 gcgctttga 1029

<210> 328
 <211> 1233
 <212> DNA
 <213> Homo sapiens

<400> 328
 atgcagcatc accaccatca ccacatgagc gataaaatta ttcacctgac tgacgacagt 60
 tttagacagg atgtactcaa agcggacggg gcgatctctg tcgatttctg ggcagagtgg 120
 tgcggtccgt gcaaaatgat cgccccgatt ctggatgaaa tcgctgacga atatcagggc 180
 aaactgacgg ttgcaaaact gaacatcgat caaaaccctg gcaactgcgc gaaatattggc 240
 atccgtggta tcccgactct gctgctgttc aaaaacgggt aagtggcgcc aaccaaaagt 300
 ggtgcaactgt ctaaaggctca gttgaaagag ttctcgacg ctaacctggc cggttctgg 360
 tctggccata tgcagcatca ccaccatcac cactgtctta tcgaaggtcg tctagctct 420
 ggtggcagcg gtctggttcc gcgtggtagc tctggttcgg gggacgacga cgacaaatct 480
 agtagggctc ccgacggttc gacctggaac gcaactgtgc cggcagttcc gttcttggac 540
 ggtggtgggt gttgcgcaact gccggttagc ggtgcagcac agtgggctcc ggttctggac 600
 ttgcgacccg cgggtgcata cgcatacggg tccctgggtg gtcctggcacc ggtccggcca 660
 cgcccgccgc cgcccgccgc gccccggcac tcttctatca aacaggaaacc gagctggggt 720
 ggtgcagaac cgcacgaaga acagtgcctg agcgattca cctgtcaatt ctccggccag 780
 ttcaactggca cagccggagc ctgtcgctac gggcccttcg gtcctcctcc gccacgccag 840
 gcgctatccg gccagggccag gatgtttcct aacggccctc acctgccagc ctgcctcgag 900
 agccagcccg ctattcgcaa tcagggttac agcacggtca ccttcgacgg gacgccccagc 960
 tacggtcaca cgccctcgca ceatgcccgc cagtteccca accactcatt caagcatgag 1020
 gatcccatgg ccagcagggg ctgcgtgggt gagcagcagt aetcggtgcc gcccccgttc 1080
 tatggctgcc acaccccac cgacagctgc accggcagcc aggtcttctg gctgaggagc 1140
 cctatagca gtgacaaatt ataccaatg acatcccagc ttgaatgcat gacctggaat 1200
 cagatgaact taggagccac cttaaaagggc tga 1233

<210> 329

<211> 1776
 <212> DNA
 <213> Homo sapiens

<400> 329
 atgcagcatc accaccatca ccacatgagc gataaaatta ttcacctgac tgacgacagt 60
 tttagacacg atgtactcaa agcggagcgg gcgatccctg tcgatttctg ggcagagttg 120
 tgcggtccgt gcaaaatgat cgcgccgatt cgtgatgaaa tcgctgacga atatcagggc 180
 aaactgaccg ttgcaaaact gaacatcgat caaaacccgt gcaactgcgc gaatatggc 240
 atccgtggta tcccgactct gctgctgttc aaaaacgggt aagtggcggc aaccaaagt 300
 ggtgcaactg ctaaaggtea gttgaaagag ttctcgcagc ctacacctggc cgtttctggt 360
 tctggccata tgcagcatca ccaccatcac cactgtctta tcgaaggtcg tgctagctct 420
 ggtggcagcg gcttggttcc gctggttagc aacgcactgc tgccggcagt tccggttctg 480
 agtaggattg gctccgacgt tctgacactg agcgggtcag cacagtgggc accgcgcgcg 540
 ggtggtgggt gctggtggcg actgcccgtt agcgggtcag cacagtgggc accgcgcgcg 600
 gacttcgcac cgcgggggtg atccgcatac ggttccctgg gtggtccggc accgcgcgcg 660
 gcacccgcgc cgcggcgccg cgcggcgccg cactccttca tcaaacagga accgcgcgcg 720
 ggtggtgcag aaccgcacga agaacagtgc ctgagcgcat tcacgttca ctctccggc 780
 cagttcactg gcacagcgg agcctgtcgc tacgggcccct tgggtcctcc tccgcccagg 840
 caggcgctcat ccggccaggc caggatgttt cctaaccgcg cctacctgcc cagctgctc 900
 gagagccagc ccgctattcg caalcagggt tacagcacgg ccaaccactc attcaagcat 960
 agctacggtc acacgccctc gcacccatgc ggcagcttcc ccaaccactc attcaagcat 1020
 gagagccagc tgggcccagca caccgacagc ggtgagcagc agtactcgtt gccgcccccg 1080
 gctctatgct gccaccccc caccgacagc ggtgagcagc gcaagccttt gctgctgagg 1140
 acgcccatac cagtgacaa ttataccaa atgacatccc agcttgaatg catgacctg 1200
 aatcagatga acttaggagc cactttaaag gcccacagca cagggtacga cagcgataac 1260
 cacacaacgc ccatcctctg cggagcccaa tacagaatac acacgcacgg tgtcttcaga 1320
 ggcattcagg actgtgcgac gttgcctgga gtacccccga ctctgtacg gtccgcatct 1380
 gagaccagtg agaaacgccc cttcatgtgt gottaccagc gctgcaataa gagataattt 1440
 aagctgtccc acttacagat gcacagcagg aagcgcactg gtgagaaacc ataccagtgt 1500
 gacttcaagg actgtgaaag aaggtttttt cgttcagacc agctcaaaag acacaaagg 1560
 agacatacag gtgtgaaacc attccagtgt aaaaacttgc agcgaaagt tccccggtcc 1620
 gaccacctga agacccacac caggactcat acaggtgaaa agcccttcag ctccggtacc 1680
 ccaagtgtgc agaaaaagtt tgcccgggtc gatgaattag tccgccatca caacatgcat 1740
 cagagaacca tgaccaaact ccagctggcg ctttga 1776

<210> 330
 <211> 771
 <212> DNA
 <213> Homo sapiens

<400> 330
 atgcagcatc accaccatca ccacggctcc gacgttctgt acctgaacgc actgctgcgc 60
 caggttccgt ccttgggtgg ttggtggtgg tgcgcactgc cggttagcgg tgcagcacag 120
 ttggtctccg ttctggaact cgcacccgcg ggtgcatccg catacggttc cctgggtggt 180
 cgcgcacccg cgcgggcacc cgcggcgccg cgcggcgccg cgcggcgccg cttcatcaaa 240
 caggaaacga gctgggtggt tgcagaacac cagcaagaac agtgccctgag cgcattcacc 300
 gttaacttct ccggccagtt cactggcaca cggcgagcct gtccctacgg gcccttctgt 360
 cctcctccgc ccagccaggc gtcctccggc caggccaggg tgtttcctaa cgcgccctac 420
 ttcgccaggt gctctgagag ccagcccgtt attcgaactc aggtgtacac caggttaccg 480
 ctcgacagga cgcgccagta cgttcacacg cctcgcaccc atgcggcgca gttccccaac 540
 cactcatcca agcatgagga tcccatgggc cagcagggct cgtggtgga cgcgcagcat 600
 tgggtccgcg ccccggtcta ttggtgccac acccccacg acagctgcac cgcgcacgag 660
 gctttgtctg tgaggacgcc ctacagcagt gacaatttat accaaatgac atcccgactt 720

771

```
<210> 331
<211> 567
<212> DNA
<213> Homo sapiens
```

400> 331						
atgcagcatc	accaccatca	ccaccacagc	acagggttacg	agagcgataa	ccacacaacg	60
cgcattcctct	gcgcagccca	atacagaata	cacacgcagc	gtgtcttcac	aggcattcacg	120
gatgtgcgcg	gtgtgccttg	atgtagcccg	actctgttac	gtgtccgatc	tgcagaccatt	180
gagaaacgcg	cctctcatgtg	tgtctaccca	ggctgcataa	agagatatct	taagctgtcc	240
caccttacaga	gtgcacagcag	gaagcacact	cgtgagaaac	cataccattg	tgaattcaag	300
gactgtgacga	gaaggtttttt	tgcttcagac	cagctcaaaa	gacaccaaa	gagacataca	360
gggtgtgaac	caattccagtg	taaaactgtt	cagcgaaact	tctcccgttc	cgacacactg	420
aagaccacca	ccaggactgac	tacaggtgtga	agagcccttca	gtctgcggtg	gccaaagttgt	480
catgaaaacat	tgtcccggttc	agatgacatta	gtcccgccatc	acaacatgca	tcagagaaaac	540
atgaccaaag	tcgcagctga	gctttgta				567

```
<210> 332
<211> 342
<212> PRT
<213> Homo sapiens
```

400> 332	Met	Gln	His	His	His	His	His	His	Met	Ser	Asp	Lys	Ile	Ile	His	Leu
					5					10					15	
Thr	Asp	Asp	Ser	Phe	Asp	Thr	Asp	Val	Leu	Lys	Ala	Asp	Gly	Ala	Ile	
			20					25						30		
Leu	Val	Asp	Phe	Trp	Ala	Glu	Trp	Cys	Gly	Pro	Cys	Lys	Met	Ile	Ala	
		35					40					45				
Pro	Ile	Leu	Asp	Glu	Ile	Ala	Asp	Glu	Tyr	Gln	Gly	Lys	Leu	Thr	Val	
	50					55					60					
Ala	Lys	Leu	Asn	Ile	Asp	Gln	Asn	Pro	Gly	Thr	Ala	Pro	Lys	Tyr	Gly	
	65				70				75						80	
Ile	Arg	Gly	Ile	Pro	Thr	Leu	Leu	Leu	Phe	Lys	Asn	Gly	Glu	Val	Ala	
				85					90					95		
Ala	Thr	Lys	Val	Gly	Ala	Leu	Ser	Lys	Gly	Gln	Leu	Lys	Glu	Phe	Leu	
			100					105					110			
Asp	Ala	Asn	Leu	Ala	Gly	Ser	Gly	Ser	Gly	His	Met	Gln	His	His	His	
		115				120						125				
His	His	His	Val	Ser	Ile	Glu	Gly	Arg	Ala	Ser	Ser	Gly	Gly	Ser	Gly	
	130					135					140					
Leu	Val	Pro	Arg	Gly	Ser	Ser	Gly	Ser	Gly	Asp	Asp	Asp	Asp	Lys	Ser	
	145				150					155					160	
Ser	Arg	His	Ser	Thr	Gly	Tyr	Glu	Ser	Asp	Asn	His	Thr	Thr	Pro	Ile	
				165					170					175		
Leu	Cys	Gly	Ala	Gln	Tyr	Arg	Ile	His	Thr	His	Gly	Val	Phe	Arg	Gly	
		180						185					190			
Ile	Gln	Asp	Val	Arg	Arg	Val	Pro	Gly	Val	Ala	Pro	Thr	Leu	Val	Arg	
		195					200					205				

Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr Pro
 210 215 220
 Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met His Ser
 225 230 235 240
 Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp Phe Lys Asp Cys
 245 250 255
 Glu Arg Arg Phe Phe Arg Ser Asp Gln Leu Lys Arg His Gln Arg Arg
 260 265 270
 His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe
 275 280 285
 Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr Gly Glu
 290 295 300
 Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg
 305 310 315
 Ser Asp Glu Leu Val Arg His His Asn Met His Gln Arg Asn Met Thr
 325 330 335
 Lys Leu Gln Leu Ala Leu
 340

<210> 333
 <211> 410
 <212> PRT
 <213> Homo sapiens

<400> 333
 Met Gln His His His His His Met Ser Asp Lys Ile Ile His Leu
 5 10 15
 Thr Asp Asp Ser Phe Asp Thr Asp Val Leu Lys Ala Asp Gly Ala Ile
 20 25 30
 Leu Val Asp Phe Trp Ala Glu Trp Cys Gly Pro Cys Lys Met Ile Ala
 35 40 45
 Pro Ile Leu Asp Glu Ile Ala Asp Glu Tyr Gln Gly Lys Leu Thr Val
 50 55 60
 Ala Lys Leu Asn Ile Asp Gln Asn Pro Gly Thr Ala Pro Lys Tyr Gly
 65 70 75 80
 Ile Arg Gly Ile Pro Thr Leu Leu Leu Phe Lys Asn Gly Glu Val Ala
 85 90 95
 Ala Thr Lys Val Gly Ala Leu Ser Lys Gly Gln Leu Lys Glu Phe Leu
 100 105 110
 Asp Ala Asn Leu Ala Gly Ser Gly Ser Gly His Met Gln His His His
 115 120 125
 His His His Val Ser Ile Glu Gly Arg Ala Ser Ser Gly Gly Ser Gly
 130 135 140
 Leu Val Pro Arg Gly Ser Ser Gly Ser Gly Asp Asp Asp Lys Ser
 145 150 155 160
 Ser Arg Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val
 165 170 175
 Pro Ser Leu Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala
 180 185 190
 Ala Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala
 195 200 205
 Tyr Gly Ser Leu Gly Gly Pro Ala Pro Pro Pro Ala Pro Pro Pro Pro

210 215 220
 Pro Pro Pro Pro Pro His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly
 225 230 235 240
 Gly Ala Glu Pro His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His
 245 250 255
 Phe Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro
 260 265 270
 Phe Gly Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met
 275 280 285
 Phe Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala
 290 295 300
 Ile Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser
 305 310 315 320
 Tyr Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser
 325 330 335
 Phe Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln
 340 345 350
 Gln Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp
 355 360 365
 Ser Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser
 370 375 380
 Asp Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn
 385 390 395 400
 Gln Met Asn Leu Gly Ala Thr Leu Lys Gly
 405 410

<210> 334
 <211> 591
 <212> PRT
 <213> Homo sapiens

<400> 334
 Met Gln His His His His His His Met Ser Asp Lys Ile Ile His Leu
 5 10 15
 Thr Asp Asp Ser Phe Asp Thr Asp Val Leu Lys Ala Asp Gly Ala Ile
 20 25 30
 Leu Val Asp Phe Trp Ala Glu Trp Cys Gly Pro Cys Lys Met Ile Ala
 35 40 45
 Pro Ile Leu Asp Glu Ile Ala Asp Glu Tyr Gln Gly Lys Leu Thr Val
 50 55 60
 Ala Lys Leu Asn Ile Asp Gln Asn Pro Gly Thr Ala Pro Lys Tyr Gly
 65 70 75 80
 Ile Arg Gly Ile Pro Thr Leu Leu Leu Phe Lys Asn Gly Glu Val Ala
 85 90 95
 Ala Thr Lys Val Gly Ala Leu Ser Lys Gly Gln Leu Lys Glu Phe Leu
 100 105 110
 Asp Ala Asn Leu Ala Gly Ser Gly Ser Gly His Met Gln His His His
 115 120 125
 His His His Val Ser Ile Glu Gly Arg Ala Ser Ser Gly Gly Ser Gly
 130 135 140
 Leu Val Pro Arg Gly Ser Ser Gly Ser Gly Asp Asp Asp Lys Ser
 145 150 155 160
 Ser Arg Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala

10002003-103001

165										170										175									
Val	Pro	Ser	Leu	Gly	Gly	Gly	Gly	Gly	Cys	Ala	Leu	Pro	Val	Ser	Gly														
180										185										190									
Ala	Ala	Gln	Trp	Ala	Pro	Val	Leu	Asp	Phe	Ala	Pro	Pro	Gly	Ala	Ser														
195										200										205									
Ala	Tyr	Gly	Ser	Leu	Gly	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Pro	Pro	Pro														
210										215										220									
Pro	Pro	Pro	Pro	Pro	Pro	His	Ser	Phe	Ile	Lys	Gln	Glu	Ser	Ala	Phe														
225										230										235									
Gly	Gly	Ala	Glu	Pro	His	Glu	Glu	Gln	Cys	Leu	Ser	Ala	Phe	Thr	Val														
240										245										250									
His	Phe	Ser	Gly	Gln	Phe	Thr	Gly	Thr	Ala	Gly	Ala	Cys	Arg	Thr	Gly														
250										255										260									
Pro	Phe	Gly	Pro	Pro	Pro	Pro	Ser	Gln	Ala	Ser	Ser	Gly	Gln	Ala	Arg														
265										270										275									
Met	Phe	Pro	Asn	Ala	Pro	Tyr	Leu	Pro	Ser	Cys	Leu	Glu	Ser	Gln	Pro														
280										285										290									

```

<400> 336
Met Gln His His His His His Ser Thr Gly Tyr Glu Ser Asp
              5              10              15
Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr
              20              25              30
His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro Gly Val
              35              40              45

```


<400> 339
atgcagcatc accaccatca ccaccaggct ttgctgctga ggacgccta cagcagtgac 60

aatttatacc	aaatgacatc	ccagcttgaa	tgcatgacct	ggaatcagat	gaacttagga	120
gccaccctaa	agggccacag	cacagggtac	gagagcgata	accacacac	gccatctctc	180
tgcggagccc	aatacagaat	acacacgcac	ggtgtcttca	gaggcattca	ggatgtgcga	240
cgtgtgcctg	gagtagcccc	gactcttgta	cggtcggcat	ctyagaccag	tgagaaacgc	300
cccttcattgt	gtgccttacc	aggctgcaat	aagagatat	ttaagctgtc	ccacttacag	360
atgcacagca	ggaagcacac	tggtgagaaa	ccataccagt	gatga		405

<210> 340
 <211> 339
 <212> DNA
 <213> Homo sapiens

<400> 340						
atgcagcatc	accaccatca	ccaccacagc	aggaagcaca	ctgggtgagaa	accataccag	60
tgtgacttca	aggactgtga	acgaaggttt	tttcgttccag	accagctcaa	aagacaccaa	120
aggagacata	caggtgtgaa	accattccag	tgtaaaactt	gtcagcgaaa	gtctccccgg	180
tccgaccacc	tgaagaccca	caccaggact	catacaggtg	aaaagccott	cagctgtcgg	240
tggtccaaagt	gtcacaaaaa	gtttgcccg	tcagatgaat	tagtccgcga	tcacaacatg	300
catcagagaa	acatgaccaa	actccagctg	gcgctttga			339

<210> 341
 <211> 1110
 <212> DNA
 <213> Homo sapiens

<400> 341						
atgcagcatc	accaccatca	ccaccactcc	ttcatcaaac	aggaaccgag	ctgggggtggt	60
gcagaaccgc	acgaagaaca	gtgcctgagc	gaattcacgc	ttcacttctc	cgcccaagttc	120
actggcacag	ccggagcctg	tgcctacggg	cccttcggtc	ctcctccggc	cagccagggcg	180
tcatccggcc	aggccaggat	gtttctctaac	gcgccttacc	tgcccagctg	cctcgagagc	240
cagcccgcta	ttcgcataca	gggttacagc	acggtcacct	tcgacggggac	gcccagctac	300
ggtcacacgc	cctcgaccca	tcgcgcgagc	ttccccaaac	actcattcaa	gcgatgaggt	360
cccatggggc	agcagggctc	gctgggtgag	cagcagtaet	cggtgcccgc	cccgtctcat	420
ggctgccaca	ccccaccga	cagctgcacc	ggcagccagg	ctttgctgct	gaggacgccc	480
tacagcagtg	acaatttata	ccaaatgaca	tcccagcttg	aatgcatacg	ctggaatcag	540
atgaacttag	gagccacctt	aaagggccac	agcacagggt	acgagagcga	taaccacaca	600
acgcccctec	tctcgggagc	ccaatacaga	atacacacgc	acggtgtctt	cagaggcatt	660
caggatgtgc	gacgtgtgcc	tggaagtagcc	ccgactcttg	tacggtcgcc	atctgagacc	720
tgtcagaaac	gccccttcac	gtgtgcttac	ccaggctgca	ataagagata	ttttaagctg	780
ttccacttac	agatgcacag	caggaagcac	actggtgaga	aaccatacca	gtgtgaattc	840
aaggactgtg	aacgaaggtt	ttttcgttca	gaccagctca	aaagacacca	aaggagacat	900
acaggtgtga	aaccattcca	gtgtaaaaact	tgtagcgcaa	agttctcccg	gtccgaccac	960
ctgaagaccc	acacaggagc	tcatacaggt	gaaaagccct	tcagctgtcg	gtggccaagt	1020
tgtcagaaaa	agtttgccc	gtcagatgaa	ttagtcgcc	atcacacaat	gcatacagaga	1080
aacatgacca	aactccagct	ggcgctttga				1110

<210> 342
 <211> 99
 <212> PRT
 <213> Homo sapiens

10002603-103001

<400> 342

Met Gln His His His His His His Gly Ser Asp Val Arg Asp Leu Asn
 5 10 15
 Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly Gly Cys Ala
 20 25 30
 Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val Leu Asp Phe Ala
 35 40 45
 Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly Pro Ala Pro Pro
 50 55 60
 Pro Ala Pro Pro Pro Pro Pro Pro Pro His Ser Phe Ile Lys
 65 70 75 80
 Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu Glu Gln Cys Leu
 85 90 95
 Ser Ala Phe

<210> 343

<211> 152

<212> PRT

<213> Homo sapiens

<400> 343

Met Gln His His His His His His Glu Gln Cys Leu Ser Ala
 5 10 15
 Phe Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys
 20 25 30
 Arg Tyr Gly Pro Phe Gly Pro Pro Pro Ser Gln Ala Ser Ser Gly
 35 40 45
 Gln Ala Arg Met Phe Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu
 50 55 60
 Ser Gln Pro Ala Ile Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp
 65 70 75 80
 Gly Thr Pro Ser Tyr Gly His Thr Pro Ser His His Ala Ala Gln Phe
 85 90 95
 Pro Asn His Ser Phe Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser
 100 105 110
 Leu Gly Glu Gln Gln Tyr Ser Val Pro Pro Val Tyr Gly Cys His
 115 120 125
 Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu Leu Arg Thr
 130 135 140
 Pro Tyr Ser Ser Asp Asn Leu Tyr
 145 150

<210> 344

<211> 133

<212> PRT

<213> Homo sapiens

<400> 344

Met Gln His His His His His Gln Ala Leu Leu Leu Arg Thr Pro
 5 10 15
 Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met
 20 25 30

10002603.103000

```

400> 346
Met Gln His His His 5 His His His His Ser Phe Ile Lys Gln Glu Pro 15
Ser Trp Gly Gly Ala Glu Pro His Glu Gln Cys Leu Ser Ala Phe 25 30
Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg 35 40 45
Tyr Gly Pro Phe Gly Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln 50 55 60
Ala Arg Met Phe Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser 65 70 75 80

```

Gln Pro Ala Ile Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly
 85 90 95
 Thr Pro Ser Tyr Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro
 100 105 110
 Asn His Ser Phe Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu
 115 120 125
 Gly Glu Gln Gln Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr
 130 135 140
 Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro
 145 150 155 160
 Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met
 165 170 175
 Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly His Ser Thr
 180 185 190
 Gly Tyr Glu Ser Asp Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln
 195 200 205
 Tyr Arg Ile His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg
 210 215 220
 Arg Val Pro Gly Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr
 225 230 235 240
 Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg
 245 250 255
 Tyr Phe Lys Leu Ser His Leu Gln Met His Ser Arg Lys His Thr Gly
 260 265 270
 Glu Lys Pro Tyr Gln Cys Asp Phe Lys Asp Cys Glu Arg Arg Phe Phe
 275 280 285
 Arg Ser Asp Gln Leu Lys Arg His Gln Arg Arg His Thr Gly Val Lys
 290 295 300
 Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His
 305 310 315 320
 Leu Lys Thr His Thr Arg Thr His Thr Gly Glu Lys Pro Phe Ser Cys
 325 330 335
 Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val
 340 345 350
 Arg His His Asn Met His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala
 355 360 365
 Leu

<210> 347
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 347
 ggctccgacg tgcgggacct g

<210> 348
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>	
<223> Primer	
<400> 348	
gaattctcaa agcgccagct ggagtttggt	30
<210> 349	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 349	
ggctccgacg tgcgggacct g	21
<210> 350	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 350	
gaattctcaa agcgccagct ggagtttggt	30
<210> 351	
<211> 21	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 351	
cacagcacag ggtacgagag c	21
<210> 352	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Primer	
<400> 352	
gaattctcaa agcgccagct ggagtttggt	30
<210> 353	
<211> 29	
<212> DNA	

<213> Artificial Sequence

<220>

<223> Primer

<400> 353

cacgaagaac agtgcctgag cgcatcac

29

<210> 354

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 354

ccggcgaatt catcagtata aattgtcact gc

32

<210> 355

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 355

caggctttgc tgctgaggac gccc

24

<210> 356

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 356

cacggagaat tcatactgg tatggtttct cacc

34

<210> 357

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 357

cacagcagga agcacactgg tgagaaac

28

<210> 358

<211> 30

10002603.103001

10002603-103001

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 358
 ggataatctgc agaattctca aagcgccagc 30

 <210> 359
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 359
 cactccttca tcaaacagga ac 22

 <210> 360
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 360
 ggataatctgc agaattctca aagcgccagc 30

 <210> 361
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 361
 ggttcgcagc tgcggggacct gaacgcactg ctg 33

 <210> 362
 <211> 40
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 362
 ctgccggcag cagtgcgcttc aggtcccgca cgtcgggaacc 40

 <210> 363

<211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 363
 ccggcagttc catccctggg tggcgggtgga ggctg 35

<210> 364
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 364
 cggcagtgcg cagcctccac cgccaccag ggatggaa 38

<210> 365
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 365
 cgcactgccg gttacgggtg cagcacagtg ggctc 35

<210> 366
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 366
 cagaactgga gccactgtg ctgcaccgt aac 33

<210> 367
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 367
 cagttctgga ctctgcaccg cctgggtgat ccgcatac 38

10002603.103001

<210> 368
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 368
 cagggaaccg tatgcggatg caccaggcgg tgcgaagtc 39

<210> 369
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 369
 ggttcctcgg gtggtccagc acctccgccc gcaacgcc 38

<210> 370
 <211> 38
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 370
 ggcggtgggg gcgttgccgg cggaggtgct ggaccacc 38

<210> 371
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 371
 ccaccgcct ccaccgccc cgcactcctt catcaaacag 40

<210> 372
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 372
 ctaggttcct gtttgatgaa ggagtgcggg ggcggtgga 39

10002603.103001

758
<223> n = A,T,C or G

<400> 377
atgggctccg acgttcgtga cctgagccgg ctgctgccgg cagttccgtc cctgggtgat 60
ggtggtggtt gcgcaetgcc ggttagcggg gcagcacagt gggctccggt tctggacttc 120
gcacccgcgg gtgcctccgc acacgggtccc ctgggtgggt ccggcgcggc gtccgcacgg 180
ccgcgcgtgc cgcgcgcggc gccgcaetcc ttcatcaaac cttgaggtggc 240
cgggaactgc ackaakaaca gtacctgagc gcgttcacgg ttcaactctc cggtcagggtt 300
cactggcaac gccgggggect gtgcctacgg gccctccggc cccctccgc ccagccaggc 360
gtcatccggc caggccaggat tgtctcctag cgcgcctcgc ctgccacgc gccctcgagag 420
gcaccccgct acccgcaatc ggggtacag caccggtcacc ttgcagcggg cgtccggcta 480
cggtcacacg cctctgcacc atgcggcgca gtctcsmar yyactcgtta ggcgtgagga 540
tcccatgggc cagcagggtc cgtgggtgga gcagcagtcg tcggcgccgc ccccggcctg 600
tgccgcggcc acccccgccg acagctgcgc cggcagccag gctttgctgc tgaggcgccc 660
ctgtagcagc gaecgtttat accaagtgc gtcccagctt gactgcattg cctggagtca 720
gatgagcttc gggggcgccct tamcggggcca cakyacarg tacgagagcg atgatcacac 780
aacgcccggc ctctcgaggag cccaatacag aatacacacg caccgtgcct tcaggggcgt 840
tcagggtgtg ccgcgtgtgc ctggagtagc cccgactctt gtacggctcg catctgagggc 900
cagtggaggaa cgcgccctca tgtgtgttta cccaggctgc aataggaggt atctgaagct 960
gcccccgtta cagatgcacg gtaggaaaga cgtggtgag agaccatacc agtgtgaact 1020
caaggactgt ggcagcaggt tttctgctc agaccggctc aaagacacc aggggagga 1080
tacagatgtg aagccattcc agcgtgaagc ctgtcagcga ggggtctccc ggcccaacca 1140
cctgaagacc cagccaggga ctcatgcagg tgaaaaagccc cccagctgtc ttgggtcaga 1200
ttgtcagaga aagcctgcc ggtcaagtga gttggtccgc catcgcgaca tgcatcagag 1260
gggcagagcc gaactccagc tggcgctttg aa 1292

<210> 378
<211> 1291
<212> DNA
<213> Homo sapiens

<400> 378
atgggctccg acgttcgtga cctaaacgca ctgctgccgg cagttccgtc cccgggtggt 60
ggtggtggtt gcgcaetgcc ggttagcggg gcacacagt gggctccggt tctggacttc 120
gtaccgcggg gtgcgcctgt atgcggttcc ctgggtggcc ccgacaccgc gccagcgccg 180
ccgcgcgtgc cgcgcgcggc gtgcgaetcc ttcatcaaac aggaaccagg ttgggtggtg 240
acagagccgc acgcaggaca gggccggagc gcactcgtcg ctcaactctc ccgccaagtc 300
actggcacag ccggagcctg tgcctacggg cctctcggtc ctctccgcgc cagccaggcg 360
tcatccggcc aggccaggat gtttcttaac gcgccttacc tgcccagctg cctcgagagc 420
cagcccgcta ttgcgaatca ggggttacagc acggtcacct tcgacgggag gccacgcta 480
ggtcacacgc cctcgacca tgcggcgca gtcgcccaacc actcatccaa gcatgaggac 540
cccatgggccc agcagggtc gccgggtgag cagcagtaet ccggcgccgc cccggtctgc 600
ggctgccgca ccccaccgg cagctgcacc cgttctgctc ctttgcgtgc tgaggcgccc 660
tacagcgtgt gcgacttaca ccaaacgaca tcccagctt gacacatggc ctggaatcag 720
acgaacttag gagccacctt aaagggccac gcacacaggt acgagagcga tgaccacaca 780
acgcccattc tctcgggaa ccatagcagg atacgcgcgc gcggcgtcct ccggggtact 840
caggatgtgc ggtgtgtgcc tgggggtggc cgaactcttg tgcggtcggc atctgagagc 900
agtgaagaag gcccccctcat gttgctctac ccaggctgca ataagagaca ctttaagcgc 960
tcccgcttgc ggggtgcggc cagggaagcg actggtgaga aaccatacca cgcgcagctc 1020
aaggaccgtg gacgagggct tctccgtcca gaccagctca aaagcgacca gagggggcat 1080
acaggtgtga aacctctcca gtgtgaagct tgacggcgga gggccccccc acccgccacc 1140
ctgaaggtcc acaccaggac ccatcacagt ggagagccct tcagttgtcg ttggccaagt 1200
tgtcaggaga agtctgccc gccagatgaa tcagcccgcc gtcataacat gcatcagaga 1260

aacatgacca aactccagct ggcgcttga a

1291

<210> 379

<211> 1281

<212> DNA

<213> Homo sapiens

<400> 379

atggggtccg acgttctgtga cctgagtgca ttgctaccga cggccccgtc cctgggtggt 60
 ggcggtgact gcacactgcc ggttagcggt acagcacagt ggcctccgtg cccggcctcc 120
 gcacccgcgg gcgcattccg atacgattcc ctgggtggcc cggcaccgcc gccgcgcgcg 180
 ccgcgcgcgc gcgcgcgcgc gccgcactcc tgcggcgaaac agggggccgag ctgggggtggt 240
 gcagaaccgc gcgaggggca atgcctgagt gcgcgcccg tccgtttctc cggccggttc 300
 accggcacag ctggagcctg tcgctatggg cccctcggtc ctccctccgc cagccaggcg 360
 ccatccggcc agaccaggat gttgccagc gcgcctatc tgtcgagttg cctcaggagc 420
 cggtccgcga tcgtagtca ggttcgcagc acggcacctt cagcggggcg cccagctatg 480
 gcacaccacc tcgcaccac gcgcagtc cactactccc aacatggggt cctacatggg 540
 ccagcagggc tcgctgggtg agcagcagta ctcggtgcgc ccccggtct atggctgcc 600
 cacccccacc gacagctgca cccgcagcca ggccttgctg ctgaggacgc cctacagcag 660
 tgacaattta taccaaatga catcccagct tgaatgcatg acctggaatc agatgaactt 720
 aggagccacc ttaaggggcc acagcacagg gtacagagagc gataaccaca caacgcccat 780
 cctctgcgga gcccaatata gaatacacac gcacgggtgc ttccagaggca ttcaggatgt 840
 gcgacgtgtg cctggagtag ccccgactct tgcacggtag cacctgagac cagtgaagac 900
 gccctttggt gtgtgttacc ggggtcgagc taagggtgat ttaagccgt ccaacttgcg 960
 ggtgcacagc aggaagcgca ttggtgagac gccacggccag tgcgactcca agggcgtggt 1020
 acgagggcct ctccgttcgg gaccagccca agggacacca aaggagacat acaggtacgc 1080
 aaccactcca gtgtaaggct tgtcagcgaa ggttccccg gtccgaccac ctgagggcc 1140
 acgccagggc ccacacgggt ggggaagccc tcaactgcgc ttggccaagc tgcagagag 1200
 ggttcgccca ctcagacgaa ttagtccgtc atcacacatc gtatcagcga aacatgacta 1260
 aactccagct ggcgcttga a

<210> 380

<211> 3020

<212> DNA

<213> Homo sapiens

<400> 380

gttcaaggca gcgccacac ccggggggtc tccgaaccc gaccgcctgt ccgtcccc 60
 acttccgcc ccctcccca cctactcatt caccaccaca cccaccaga cggggagcgg 120
 cagccacagg gcccgggccc gcgcgtctcc tcgcccagct ctcttgctgc 180
 aggacccggc ttccagctgt gtccgggagc cggcgctcca gcacacgctc cgtctcgggc 240
 ctgggtgcct acagcagcca gacgacgagg gactccggga cccggggcgc atctggggcca 300
 agttaggcgc cgcgagggcc agcgtgaac cgggaggagc ccgcgggcgt 360
 ccgggtctga gctctagcaa atgggtctcc actgaacggc ctgctgcccg 420
 ccgtccctcc cctgggtggc ggcgcgggct gtgcctgcc tgtgagcggc gcggcgact 480
 gggcgccggt gctggaactt gcgcceccgc gcgctcggc ttacgggtcg ttggcgcc 540
 ccgcgcgcgc accggtccg ccgcccacc gcgcgcgcc gctcactcc ttcactcaac 600
 aggagccgag ctggggcggc cgggagccgc acgaggagca gtgcctgagc ccttcaactg 660
 tccacttttc cggccagtcc actggcacag ccgagacctg tcgctacggg cccttcggtc 720
 ctctcccgcc cagccaggcg tcatccggcc aggcaggagt gtttctcaac gcgcctacc 780
 tgccagctg cctcgagagc cagcccgtca ttcgcaatca ggttatcagc agcgtcaact 840
 tcgacgggac gccacgtac ggtcacagc cctcgacca tgcggcgagc ttcccaaac 900

```
<210> 381
<211> 1291
<212> DNA
<213> Homo sapiens
```

400> 381							
atggggctccg	acgttcgtgga	cctgaacgca	ctgctgcggg	cagttccgtc	cctgggtggt	60	
gtgtgtgggt	gcgcactgcc	ggtagcgtt	gcagcacagt	gggtccggt	tctgacttc	120	
cgacgcgcgc	gtgactcgc	atacggttc	ctgggtggtc	cggcacccgc	gccggcaccg	180	
cgccgcgcgc	cgccgcgcgc	gcgcactcc	tctactcaac	aggaaaccag	ctgggtgggt	240	
cgagaacacg	acogaagaac	gtcctgagc	gcattcacg	tctaacttc	cgcgcagttc	300	
actggccacg	cgcgagcgt	tgctacagg	ccctcggtc	ctctccgcc	ggagcaggt	360	
tcatccggcc	aggccaggat	gtttctaac	gcgcctaac	tgccacagtc	ctccgagag	420	
cagccgcctc	tctcgataca	gggttcacg	acggtccact	ctcagggag	gccccagctac	480	
ggtcacacgc	ctctcgcaac	tgccgcgcg	tcccacaac	actcatcaa	gcattgaggt	540	
cccatggccc	acgagggctc	gctgggtgag	gcagagtaat	cggtgcgcgc	cccgctctat	600	
cggtggcaca	ccccccacg	cagctgcacc	ggcagcagg	cttgttgtc	gaggcagccc	660	

tacagcagtg	acaatttata	ccaaatgaca	tccagcttg	aatgcacgac	ctggaatcag	720
atgaacttag	gagccacctt	aaagggccac	agcacagggt	acgagagcga	taaccacaca	780
acgcccattcc	tctgcgagac	ccaatacaga	atacacacgc	acggtgtctt	cagaggcatt	840
caggatgtgc	gacgtgtgcc	tggagttagcc	ccgactcttg	tacggctcggc	atctgagacc	900
agtggagaac	gcccttcat	gtgtgcttac	ccaggctgca	ataagagata	ttttaagctg	960
tcccacttac	agatgcacag	caggaagcac	actggtgaga	aaccatacca	gtgtgacttc	1020
aaggactgtg	aacgaaggtt	ttttcggtca	gaccagctca	aaagacacca	aaggagacat	1080
acaggtgtgc	aacctatcca	gtgtaaaaat	gtgcacgcaa	agttctcccg	ctgcgaccac	1140
ctgaagacc	acaccaggac	tcatacaggt	gaaaagccct	tcagctgtgc	gtggccaagt	1200
tgtcagaaaa	agtttgcccg	gtcagatgaa	ttagtccgcc	atcacacat	gcacagaga	1260
aacatgacca	aactccagct	ggcgcttga	g			1291

<210> 382
 <211> 1491
 <212> DNA
 <213> Homo sapiens

<400> 382						
atggcgccc	cggcgccc	gggtgctg	ctctgctg	tgtgaggc	cttgacat	60
ggcgccctcag	cactcttga	ggatctaag	ggctccgag	ttcgtgact	gaacgcactg	120
ctgcggcgag	ttcgtccct	gggtggtgtg	gggtggtg	cactgcccgt	tagcgggtgca	180
gcacagtgag	ctccggttct	ggacttcgca	ccgcccgggtg	cactccgata	cggttccctg	240
gggtgctcgg	caccgcgcc	ggcaccgcc	ccgcccgcgc	cgccgcactc	cttcacaaa	300
caggaaccga	gctgggtgtg	tgcaaacgc	cacgaagaac	agtgccctgag	cgcatccacc	360
gttcacttct	ccggccaggt	cactggcaca	ggcgagcct	gtcgtacgg	gccctcggt	420
ctctcccg	ccagccaggc	gtcatccgc	caggccagg	gttttctaa	cgccgccctac	480
ctgccagct	gcctcgagag	ccagcccgct	attcgcaatc	agggttacag	cacggtcacc	540
ttcgacggga	cgcccgacta	cggtcacag	ccctcgacc	atgcggcgca	gttccccaac	600
cactcattca	agcatgagga	tcccatggc	cagcagggtg	cgctgggtga	gcagcagtac	660
tcgggtccgc	ccccgggtcta	tggctgccac	acccccaccg	acagctgcac	cgcgacggag	720
gctttgtctg	tgaggacgcc	ctacagcagt	gacaaattat	accaaagac	atcccagctt	780
gaatcgatga	ctgggaatca	gatgaactta	ggagccacct	taaagggcca	cagcacaggg	840
tacgagagcg	ataaccacac	aacgcccctc	ctctgcggag	cccaatacag	aatacacacg	900
cacggtgtct	tcagaggcat	tcaggatgtg	cgactgtgc	ctggagtagc	cccgactctt	960
gtacggtcgg	catctgagac	cagtggagaa	cgcccttca	gtgtgctta	ccagggctgc	1020
aataagagat	attttaagct	gtcccactta	cagatgcaca	gcagggaagca	cactggttag	1080
aaaccatacc	agtggtgact	caaggactgt	gaacgaagg	tttttcgttc	agaccagctg	1140
aaaagacacc	aaaggagaca	tacaggtgtg	aaaccattcc	agtgtaaaac	ttgtcagcga	1200
aagttctccc	ggtccgacca	ctggaagacc	cacaccagga	ctcatacagg	tgaaaagccc	1260
ttcagctgtc	gggtggccaag	ttgtcagaaa	aagtttgccc	ggtcagatga	attagtcgcg	1320
catcacaca	tgcatcagag	aaacatgacc	aaactccagc	tggcgcttct	taacaacatg	1380
ttgatcccca	ttgctgtggg	cggtgccctg	gcagggtcgt	tcctcatcgt	cctcatgccc	1440
tacctcattg	gcaggaaagag	gagtcacgccc	ggctatcaga	ccatctagtg	a	1491

<210> 383
 <211> 1251
 <212> DNA
 <213> Homo sapiens

<400> 383

atggcgcccc	gcagcgcccc	gcgacccctg	ctgctgctac	tgccctgttc	tgctgctcgg	60
cctcatgcat	tgctgtcagc	agccatgttt	atgggtgaaa	atggcaacgg	gaccgcgtgc	120
ataatggcca	actctctcgc	tgccctctca	gtgaactacg	acaccaagg	tgggcccaag	180
aaacatgacc	ttgacctgcc	atcagatgcc	acaggtgtgc	tcaaccgcag	ctcctgtgga	240
aaagagaaca	cttctgaccc	cagtcctcgt	atgtcttttg	gaagaggaca	tacactcact	300
ctcaatttca	cgagaaatgc	aacacggtac	agcgttcagc	tcgatggttt	tgtttataac	360
ttgtcagaca	cacacctttt	ccccaatgcg	agctccaaag	aaatcaagac	tgtggaatct	420
ataactgaca	tacagggcaga	tatagataaa	aaatacagat	gtgttagtgg	caccocaggte	480
cacatgaaca	acgtgacccg	aacgtcccat	gatgccacca	tccaggcgta	cctttccaac	540
agcagcttca	gcaggggaga	gacacgctgt	gaacaagaca	ggccttcccc	aaccacagcg	600
ccccctgcgc	caccacagcc	ctcgccctca	cccggtccca	agagccccc	tgtggacaag	660
tacaacgtga	gcggcaccaa	cgggacctgc	ctgctggcca	gcattgggct	gcagctgaac	720
ctcacctatg	agagggaagga	caacacgcag	gtgacaaggc	ttctcaacat	caaccccaac	780
aaagacctcg	ccagcgggag	ctcgggcgcc	cacctggtga	ctctggagct	gcacagcgag	840
ggcaccaccc	tcctgtcttt	ccagttcggg	atgaatgcaa	gttctagccg	gtttttctcta	900
caaggaaatc	agttgaatac	aattcttctc	gacgccagag	acctgccttt	taaggtgcc	960
aacggctccc	tgcgagcgct	gcaggccaac	gtcggcaatt	cctacaagtg	caacgcggag	1020
gagcagctcc	gtgtcaacgaa	ggcggtttca	gtcaatatat	tcaagtgtgt	ggtccaggct	1080
ttcaaggtgt	aaggtggcca	gtttggctct	gtggaggagt	gtctgctgga	cagagaacagc	1140
acgctgatcc	ccatcgctgt	gggtgggtgcc	ctggcggggc	tggtctccat	cgtcctcatc	1200
gctacacctg	tgcgcaggaa	gaggagtcac	gcaggctacc	agactatcta	g	1251

<210> 384
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 384						
atgcagatct	tcgtgaagac	tctgactggt	aagaccatca	ccctgcagggt	ggagcccagt	60
gacaccatcg	agaatgtcaa	ggcaaaagatc	caagataaag	aaggcatttc	tcttgatcag	120
cagagggtga	tctttgcggc	aaaacagctg	gaagatggtc	gtacctgttc	tgactacaac	180
atccagaaa	agtcacacct	gcacctggta	ctccgtctca	gaggtggg		228

<210> 385
 <211> 1515
 <212> DNA
 <213> Homo sapiens

<400> 385						
atgcagatct	tcgtgaagac	cctgacggcg	aagaccatca	ccctggaagt	ggagcccagt	60
gacaccatcg	aaaatgtgaa	ggccaagatc	caggataaag	aaggcatccc	tcccagaccag	120
cagaggctca	tctttgcagg	caagcagcta	gaagatggcc	gcaacttttc	tgactacaac	180
atccagaaag	agtcgaccc	gcacctggtc	cttcgcctga	gaggtgccat	gggctccgac	240
gttctgtgac	tgaacgcact	gctgcggcca	gttcgctccc	tgggtggtgg	tggtggttgc	300
gcactgcggc	ttagcgtgtc	agcacagtgg	gtcccggttc	tggacttcgc	accgcggggt	360
gcattccgat	acggttccct	gggtgggtccg	gcaccgcgcg	cggcaccgcg	gccgcggccg	420
ccgcgcggcg	actccttcat	caaacaggaa	ccgagctggg	gtgggtcgaga	accgcacgaa	480
gaacagtgc	tgaecgcat	caccgttcac	ttctccggcc	agttcaactg	cacagccgga	540
gccctgtcgt	acgggcccct	cgttcctcct	ccgcccaagg	agggcgtatc	cgccagggcc	600
aggaatgttc	ctaacgcgcc	ctatctgccc	agctgcctcg	agagccagcc	cgtatctcgc	660
aatcagggtt	acagcagggt	caacctcgac	gggaagccca	gctacggtca	accgcctcgt	720
caccatgcgg	cgcagttccc	caaccactca	ttcaagcatg	aggaatcccat	gggcagcgag	780


```

ggctcgctgg  gtgagcagca  gtactcgggt  cgcgcccggt  tctatgggtg  ccacaccccc  840
accgacagct  gcaccggcag  ccaggctttg  ctgctgagga  cgccctacag  cagtgcacat  900
ttataccaaa  tgacatccca  gcttgaatgc  atgacctgga  atcagatgaa  cttaggagcc  960
accttaaaag  gccacagcac  agggtagcag  agcgataacc  acacaacgcc  ctatcctctgc  1020
ggagcccaat  acagaataca  cagcgacggt  gtcttcagag  gcattcagga  tgtgcgagct  1080
gtgctggag  tagcccgac  tcttgtaggg  tcggcatctg  agaccagtga  gaaacgcccc  1140
ttcatgtgtg  cttaccagg  ctgcaataag  agatatttta  agctgtccca  cttacagatg  1200
cacagcagga  tagcccgac  tgagaaacca  taccagtgtg  acttcaagga  ctgtgaacca  1260
agggtttttc  gttcagacca  gctcaaaaaga  caccaaaagga  gacatacagg  tgtgaacca  1320
ttccagtgta  aaacttgta  gcgaaaagttc  tcccggtccg  accacctgaa  gaccacacc  1380
aggactcata  cagggtgaaa  gcccttcagc  gtgcggtggc  caagttgtca  gaaaaagtt  1440
gcccggtcag  atgaattagt  ccgccatcac  aacatgcac  agagaacat  gaccaactc  1500
cagctggcgc  tttaga

```

<210> 386

<211> 648

<212> DNA

<213> Homo sapiens

<400> 386

```

atgcactcct  tcatcaaaaca  ggaaccgagc  tgggggtggt  cagaaccgca  cgaagaacag  60
tgcttagcgg  cattcacggt  tcaacttctc  ggccaggttca  ctggcacagc  cggagcctgt  120
cgctacgggc  ccttcgggtcc  tctcccgccc  agccaggcgt  catccggcca  gcccaggatg  180
tttctaacc  cgccctacct  gcccagctgc  ctcgagagcc  agcccgctat  tcgcaatcag  240
ggttacagca  cggtcacctt  cgacgggagc  cccagctacg  gtccacagcc  ctcgaccat  300
gcggcgaggt  tccccaacca  ctcatcaag  catgaggatc  ccattggcca  gcagggtctg  360
ctgggtgagc  agcagtactc  ggtgcggccc  ccggtctatg  gctgccacac  cccaccgac  420
agctgcaccg  gcagccaggc  tttgctgctg  aggacgccc  acagcagtg  caattttac  480
caaatgacat  cccagcttga  atgcatgacc  tggaatcaga  tgaacttagg  agccacctta  540
aagggccaca  gcacagggt  cgagagcgat  aaccacacaa  cgcccatcct  ctgcggagcc  600
caatacagaa  tacacacgca  cgggtgtctc  agaggcattc  agtgatga

```

<210> 387

<211> 1089

<212> DNA

<213> Homo sapiens

<400> 387

```

atgcactcct  tcatcaaaaca  ggaaccgagc  tgggggtggt  cagaaccgca  cgaagaacag  60
tgcttagcgg  cattcacggt  tcaacttctc  ggccaggttca  ctggcacagc  cggagcctgt  120
cgctacgggc  ccttcgggtcc  tctcccgccc  agccaggcgt  catccggcca  gcccaggatg  180
tttctaacc  cgccctacct  gcccagctgc  ctcgagagcc  agcccgctat  tcgcaatcag  240
ggttacagca  cggtcacctt  cgacgggagc  cccagctacg  gtccacagcc  ctcgaccat  300
gcggcgaggt  tccccaacca  ctcatcaag  catgaggatc  ccattggcca  gcagggtctg  360
ctgggtgagc  agcagtactc  ggtgcggccc  ccggtctatg  gctgccacac  cccaccgac  420
agctgcaccg  gcagccaggc  tttgctgctg  aggacgccc  acagcagtg  caattttac  480
caaatgacat  cccagcttga  atgcatgacc  tggaatcaga  tgaacttagg  agccacctta  540
aagggccaca  gcacagggt  cgagagcgat  aaccacacaa  cgcccatcct  ctgcggagcc  600
caatacagaa  tacacacgca  cgggtgtctc  agaggcattc  agtgatgctg  acgtgtgctc  660
ggagtacgcc  cgaactttgt  acggtcgcca  tctgagacac  gtgagaaacc  ccccttcag  720
tgtgtctacc  caggctgcaa  taagagatat  ttttaagctg  cccacttaca  gatgcacagc  780
aggaagcaca  ctggtgagaa  accataccag  tgtgacttca  aggactgtga  acgaagggtt  840
tttgcgtcag  accagctcaa  aagacaccaa  aggagacata  cagggtgtgaa  accattccag  900

```

10002603-103001

gtgtaaaactt gtcagcgaaa gttctcccg tccgaccacc tgaagaccca caccaggact 960
 catacagggtg aaaagccctt cagctgtcgg tggccaaagt gtcagaaaaa gtttgcccg 1020
 tcagatgaat tagtcgcgca tcacaacatg catcagagaa acatgaccaa actccagctg 1080
 gcgctttga 1089

<210> 388
 <211> 1035
 <212> DNA
 <213> Homo sapiens

<400> 388
 atgacggcgc cgtccgataa cttccagctg tcccagggtg ggcagggatt cgccattccg 60
 atcgggcagg cgatggcgat cgcggggccag atcaagcttc ccaccgttca tatcgggcct 120
 accgccttcc tcggcttggg tgttgtcgac aacaacggca acggcgcacg agtccaacgc 180
 gtggctcgga gcgcctccgc ggcaagtctc ggcattctcca cggcgacgt gatcaccgcg 240
 gtgcagcgcg ctccgatcaa ctccggccacc gcgatggcgg acgcgcttaa cgggcatcat 300
 cccgtgtacg tcatctcggt gacctggcaa accaagtctg gcggcgacgc tacagggaac 360
 gtgcattggc ccgagggacc cccggccgaa ttccactctt tcatcaaca ggaaccgagc 420
 tggggtgggt cagaacccag cgaagaacag tgcttgagcg cttctacgtt tcatctctcc 480
 ggcagattca ctggcacagc cggagcctgt cgtacaggcg cttcggctcc tctccgcgcc 540
 agccaggcgt catccggcca ggccaggatg ttctctaacg cggctacctc gccacagtgc 600
 ctcgagagcc agcccgctat tcgcaatcag ggttacagca cggctacctt cgacgggacg 660
 cccagctaac gtccacagcc ctccgacatc gcggcgacgt tccccaaaca ctcattcaag 720
 catgaggatc ccatggggcca gcagggtctg ctgggtgagc agcagtactc ggttcgcgcc 780
 cccgtctatg cgtgccacac ccccaccgac agctgcacgc gcagccagcg tttgtgctg 840
 aggcagccct acagcagta caatttatac caaatgacat cccagcttga atgcattgac 900
 tgggaatcaga tgaacttagg agccacctta aagggccaca gcacagggtg cgagagcgat 960
 aaccacacaa cggccattct ctgcggagcc caatacagaa tacacacgca cgtgtgtctc 1020
 agaggcatte agtga 1035

<210> 389
 <211> 1263
 <212> DNA
 <213> Homo sapiens

<400> 389
 atgacggcgc cgtccgataa cttccagctg tcccagggtg ggcagggatt cgccattccg 60
 atcgggcagg cgatggcgat cgcggggccag atcaagcttc ccaccgttca tatcgggcct 120
 accgccttcc tcggcttggg tgttgtcgac aacaacggca acggcgcacg agtccaacgc 180
 gtggctcgga gcgcctccgc ggcaagtctc ggcattctcca cggcgacgt gatcaccgcg 240
 gtgcagcgcg ctccgatcaa ctccggccacc gcgatggcgg acgcgcttaa cgggcatcat 300
 cccgtgtacg tcatctcggt gacctggcaa accaagtctg gcggcgacgc tacagggaac 360
 gtgacattgg ccgagggacc cccggccgaa ttcccgctgg tgccgcgcgg cagcccgatg 420
 ggctcgacgc ttcggcagct gaacgcactg ctgcggcgag gcttcgtccct ggtgtgtggt 480
 ggtggttggc cactgcgggt tagcgggtgca gcacagtggg ctcgggttct ggacttcgca 540
 cccgcggcgc catccgata cggttccctg ggtggtccgg ggtggtccgg cagcccgccg 600
 cccgcggcgc cccgcggcgc gactctcttc atcaaacagg aaccgagctg ggtggtgca 660
 gaaccgcagc aagaacagtg cctgagcgca ttaccgctt cttctccgg ccagttcact 720
 ggcaacagcg gagcctgtcg ctaagggcc ttcggtcttc ctcggcccg ccagcgctca 780
 tccggccagg ccaggatgtt tcttaacgg cctacctgc cagctgcct cgagagcgc 840
 cccgctattc gcaattcagg gtacagcag cgcagcgcc accgggagcgc cagctacgtg 900
 cacacgcccc cgcacacatg ggcgcagtt ccaaacact cattcaaga tgagatcccc 960
 atgcccagcg agggctcgct ggtgagcag cagtaactgc tgccgcctcc ggtctatggc 1020
 tgcacacccc ccaccgacag ctgcaccgac agccaggctt tgctgctgag gacgcctac 1080

10002603.103000

35 40 45
 Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val Val Gly Ser
 50 55 60
 Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val Ile Thr Ala
 65 70 75 80
 Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala Asp Ala Leu
 85 90 95
 Asn Gly His His Pro Gly Asp Val Ile Ser Val Thr Trp Gln Thr Lys
 100 105
 Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu Gly Pro Pro
 115 120 125
 Ala Glu Phe His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala
 130 135 140
 Glu Pro His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe Ser
 145 150 155 160
 Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly
 165 170 175
 Pro Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe Pro
 180 185 190
 Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg
 195 200 205
 Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly
 210 215 220
 His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe Lys
 225 230 235 240
 His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr
 245 250 255
 Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser Cys
 260 265 270
 Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn
 275 280 285
 Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln Met
 290 295 300
 Asn Leu Gly Ala Thr Leu Lys Gly His Ser Thr Gly Tyr Glu Ser Asp
 305 310 315 320
 Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr

10002603-103001

325

330

335

His Gly Val Phe Arg Gly Ile Gln
340

<210> 392

<211> 568

<212> PRT

<213> Homo sapiens

<400> 392

Met Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly
5 10 15

Phe Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Lys
20 25 30

Leu Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly Leu Gly Val
35 40 45

Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val Val Gly Ser
50 55 60

Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val Ile Thr Ala
65 70 75 80

Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala Asp Ala Leu
85 90 95

Asn Gly His His Pro Gly Asp Val Ile Ser Val Thr Trp Gln Thr Lys
100 105 110

Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu Gly Pro Pro
115 120 125

Ala Glu Phe Pro Leu Val Pro Arg Gly Ser Pro Met Gly Ser Asp Val
130 135 140

Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly
145 150 155 160

Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val
165 170 175

Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly
180 185 190

Pro Ala Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro Pro His
195 200 205

Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu
210 215 220

10002603-103001

Arg Arg His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg
500 505 510

Lys Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr
515 520 525

Gly Glu Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys Lys Phe
530 535 540

Ala Arg Ser Asp Glu Leu Val Arg His His Asn Met His Gln Arg Asn
545 550 555 560

Met Thr Lys Leu Gln Leu Ala Leu
565

<210> 393

<211> 420

<212> PRT

<213> Homo sapiens

<400> 393

Met Thr Ala Ala Ser Asp Asn Phe Gln Leu Ser Gln Gly Gly Gln Gly
5 10 15

Phe Ala Ile Pro Ile Gly Gln Ala Met Ala Ile Ala Gly Gln Ile Lys
20 25 30

Leu Pro Thr Val His Ile Gly Pro Thr Ala Phe Leu Gly Leu Gly Val
35 40 45

Val Asp Asn Asn Gly Asn Gly Ala Arg Val Gln Arg Val Val Gly Ser
50 55 60

Ala Pro Ala Ala Ser Leu Gly Ile Ser Thr Gly Asp Val Ile Thr Ala
65 70 75 80

Val Asp Gly Ala Pro Ile Asn Ser Ala Thr Ala Met Ala Asp Ala Leu
85 90 95

Asn Gly His His Pro Gly Asp Val Ile Ser Val Thr Trp Gln Thr Lys
100 105 110

Ser Gly Gly Thr Arg Thr Gly Asn Val Thr Leu Ala Glu Gly Pro Pro
115 120 125

Ala Glu Phe Pro Leu Val Pro Arg Gly Ser Pro Met Gly Ser Asp Val
130 135 140

Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly
145 150 155 160

Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val
165 170 175

Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly
180 185 190

10002603 103001

Met His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro

5 10 15
 His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln
 20 25 30
 Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro
 35 40 45
 Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala
 50 55 60
 Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln
 65 70 75 80
 Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr
 85 90 95
 Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu
 100 105 110
 Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val
 115 120 125
 Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly
 130 135 140
 Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr
 145 150 155 160
 Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu
 165 170 175
 Gly Ala Thr Leu Lys Gly His Ser Thr Gly Tyr Glu Ser Asp Asn His
 180 185 190
 Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly
 195 200 205
 Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro Gly Val Ala Pro
 210 215 220
 Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met
 225 230 235 240
 Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu
 245 250 255
 Gln Met His Ser Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp
 260 265 270
 Phe Lys Asp Cys Glu Arg Arg Phe Phe Arg Ser Asp Gln Leu Lys Arg
 275 280 285
 His Gln Arg Arg His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys

10002003-103001

290 295 300

Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr
305 310 315 320

His Thr Gly Glu Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys
325 330 335

Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His Asn Met His Gln
340 345 350

Arg Asn Met Thr Lys Leu Gln Leu Ala Leu
355 360

<210> 395
<211> 214
<212> PRT
<213> Homo sapiens

<400> 395
Met His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro
5 10 15

His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln
20 25 30

Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro
35 40 45

Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala
50 55 60

Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln
65 70 75 80

Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr
85 90 95

Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu
100 105 110

Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val
115 120 125

Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly
130 135 140

Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr
145 150 155 160

Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu
165 170 175

10002603-1030001

Gly Ala Thr Leu Lys Gly His Ser Thr Gly Tyr Glu Ser Asp Asn His
180 185 190

Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly
195 200 205

Val Phe Arg Gly Ile Gln
210

<210> 396
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 396
gacgaaagca tatgcactcc ttcacaaac 30

<210> 397
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 397
cgcgtaatt catcactgaa tgcctctgaa g 31

<210> 398
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 398
cgataagcat atgacggccg cgtccgataa c 31

<210> 399
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 399
cgcgtaatt catcactgaa tgcctctgaa g 31

10002603-103001

```
<400> 404
Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro
  1             5             10            15
```

Ser Leu Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala
 20 25 30
 Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr
 35 40 45
 Gly Ser Leu Gly Gly Pro Ala Pro Pro Ala Pro Pro Pro Pro
 50 55 60
 Pro Pro Pro Pro His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly
 65 70 75 80
 Ala Glu Pro His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe
 85 90 95
 Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe
 100 105 110
 Gly Pro Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe
 115 120 125
 Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile
 130 135 140
 Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr
 145 150 155 160
 Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe
 165 170 175
 Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln
 180 185 190
 Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser
 195 200 205
 Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp
 210 215 220
 Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln
 225 230 235 240
 Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala Gly Ser Ser Ser
 245 250 255
 Ser Val Lys Trp Thr Glu Gly Gln Ser Asn His Ser Thr Gly Tyr Glu
 260 265 270
 Ser Asp Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile
 275 280 285
 His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro
 290 295 300
 Gly Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys
 305 310 315 320
 Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys
 325 330 335
 Leu Ser His Leu Gln Met His Ser Arg Lys His Thr Gly Glu Lys Pro
 340 345 350
 Tyr Gln Cys Asp Phe Lys Asp Cys Glu Arg Arg Phe Ser Arg Ser Asp
 355 360 365
 Gln Leu Lys Arg His Gln Arg Arg His Thr Gly Val Lys Pro Phe Gln
 370 375 380
 Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr
 385 390 395 400
 His Thr Arg Thr His Thr Gly Lys Thr Ser Glu Lys Pro Phe Ser Cys
 405 410 415
 Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val
 420 425 430
 Arg His His Asn Met His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala
 435 440 445

10002603.103001

Leu

<210> 405
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 405
 Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro
 1 5 10 15
 Ser Pro Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Thr
 20 25 30
 Gln Trp Ala Pro Val Leu Asp Phe Val Pro Pro Gly Ala Pro Val Cys
 35 40 45
 Gly Ser Leu Gly Gly Pro Ala Pro Pro Ala Pro Pro Leu Pro
 50 55 60
 Pro Pro Pro Ser His Ser Phe Thr Lys Gln Glu Pro Ser Trp Gly Gly
 65 70 75 80
 Thr Glu Pro His Ala Gly Gln Gly Arg Ser Ala Leu Val Ala His Ser
 85 90 95
 Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe
 100 105 110
 Gly Pro Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe
 115 120 125
 Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile
 130 135 140
 Arg Asn Gln Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr
 145 150 155 160
 Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Ser
 165 170 175
 Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Pro Gly Glu Gln Gln
 180 185 190
 Tyr Ser Ala Pro Pro Pro Val Cys Gly Cys Arg Thr Pro Thr Gly Ser
 195 200 205
 Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Ala Pro Tyr Ser Gly Gly
 210 215 220
 Asp Leu His Gln Thr Thr Ser Gln Leu Gly His Met Ala Trp Asn Gln
 225 230 235 240
 Thr Asn Leu Gly Ala Thr Leu Lys Gly His Gly Thr Gly Tyr Glu Ser
 245 250 255
 Asp Asp His Thr Thr Pro Ile Leu Cys Gly Thr Gln Tyr Arg Ile Arg
 260 265 270
 Ala Arg Gly Val Leu Arg Gly Thr Gln Asp Val Arg Cys Val Pro Gly
 275 280 285
 Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg
 290 295 300
 Pro Leu Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg His Phe Lys Pro
 305 310 315 320
 Ser Arg Leu Arg Val Arg Gly Arg Glu Arg Thr Gly Glu Lys Pro Tyr
 325 330 335
 Gln Arg Asp Phe Lys Asp Arg Gly Arg Gly Leu Leu Arg Pro Asp Gln
 340 345 350

10002603-103001

Leu Lys Arg His Gln Arg Gly His Thr Gly Val Lys Pro Leu Gln Cys
 355 360 365
 Glu Ala Arg Arg Arg Pro Pro Arg Pro Gly His Leu Lys Val His Thr
 370 375 380
 Arg Thr His Thr Gly Gly Glu Pro Phe Ser Cys Arg Trp Pro Ser Cys
 385 390 395 400
 Gln Glu Lys Ser Ala Arg Pro Asp Glu Ser Ala Arg Arg His Asn Met
 405 410 415
 His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala Leu
 420 425

<210> 406

<211> 414

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> 85, 86, 172, 173, 242, 245, 246, 247

<223> Xaa = Any Amino Acid

<400> 406

Met Gly Ser Asp Val Arg Asp Leu Ser Ala Leu Leu Pro Ala Val Pro
 1 5 10 15
 Ser Leu Gly Asp Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala
 20 25 30
 Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala His
 35 40 45
 Gly Pro Leu Gly Gly Pro Ala Pro Pro Ser Ala Pro Pro Pro Pro
 50 55 60
 Pro Pro Pro Pro His Ser Phe Ile Lys Gln Gly Pro Ser Trp Gly Gly
 65 70 75 80
 Ala Glu Leu His Xaa Xaa Gln Tyr Leu Ser Ala Phe Thr Val His Ser
 85 90 95
 Ser Gly Gln Val His Trp His Gly Arg Gly Leu Ser Leu Arg Ala Pro
 100 105 110
 Arg Pro Pro Ser Ala Gln Pro Gly Val Ile Arg Pro Gly Gln Asp Val
 115 120 125
 Ser Arg Ala Leu Pro Ala Gln Pro Pro Arg Glu Pro Ala Arg Tyr Pro
 130 135 140
 Gln Ser Gly Leu Gln His Gly His Leu Arg Arg Gly Val Arg Leu Arg
 145 150 155 160
 Ser His Ala Leu Ala Pro Cys Gly Ala Val Leu Xaa Xaa Thr Arg Ala
 165 170 175
 Gly Ser His Gly Pro Ala Gly Ser Ala Gly Ala Ala Val Leu Gly Ala
 180 185 190
 Ala Pro Gly Leu Trp Pro Pro His Pro Arg Arg Gln Leu Arg Arg Gln
 195 200 205
 Pro Gly Phe Ala Ala Glu Gly Ala Leu Gln Arg Arg Phe Ile Pro Ser
 210 215 220
 Asp Val Pro Ala Val His Gly Leu Glu Ser Asp Glu Pro Arg Gly Arg
 225 230 235 240
 Leu Xaa Gly Pro Xaa Xaa Xaa Val Arg Glu Arg Ser His Asn Ala Arg

10002603 = 1030001
 10002603 = 1030001

245 250 255
 Pro Leu Arg Ser Pro Ile Gln Asn Thr His Ala Arg Cys Leu Gln Gly
 260 265 270
 Arg Ser Gly Cys Ala Pro Cys Ala Trp Ser Ser Pro Asp Ser Cys Thr
 275 280 285
 Val Gly Ile Gly Gln Gly Thr Pro Pro His Val Cys Leu Pro Arg Leu
 290 295 300
 Gln Glu Val Ser Glu Ala Ala Pro Leu Thr Asp Ala Arg Glu Ala Arg
 305 310 315 320
 Trp Glu Thr Ile Pro Val Leu Gln Gly Leu Trp Thr Glu Val Phe Leu
 325 330 335
 Leu Arg Pro Ala Gln Lys Thr Pro Gly Glu Ala Tyr Arg Cys Glu Ala
 340 345 350
 Ile Pro Ala Asp Leu Ser Ala Arg Val Leu Pro Ala Gln Pro Pro Glu
 355 360 365
 Asp Pro Arg Gln Asp Ser Cys Arg Lys Ala Pro Gln Leu Ser Val Val
 370 375 380
 Arg Leu Ser Glu Lys Ala Cys Pro Val Lys Val Gly Pro Pro Ser Arg
 385 390 395 400
 His Ala Ser Glu Gly His Asp Arg Thr Pro Ala Gly Ala Leu
 405 410

<210> 407

<211> 417

<212> PRT

<213> Homo sapiens

<400> 407

Met Gly Ser Asp Val Arg Asp Leu Ser Ala Leu Leu Pro Thr Ala Pro
 1 5 10 15
 Ser Leu Gly Gly Gly Asp Cys Thr Leu Pro Val Ser Gly Thr Ala
 20 25 30
 Gln Trp Ala Pro Val Pro Ala Ser Ala Pro Pro Gly Ala Ser Ala Tyr
 35 40 45
 Asp Ser Leu Gly Gly Pro Ala Pro Pro Ala Pro Pro Pro Pro
 50 55 60
 Pro Pro Pro Pro His Ser Cys Gly Glu Gln Gly Pro Ser Trp Gly Gly
 65 70 75 80
 Ala Glu Pro Arg Glu Gly Gln Cys Leu Ser Ala Pro Ala Val Arg Phe
 85 90 95
 Ser Gly Arg Phe Thr Gly Thr Val Gly Ala Cys Arg Tyr Gly Pro Leu
 100 105 110
 Gly Pro Pro Pro Pro Ser Gln Ala Pro Ser Gly Gln Thr Arg Met Leu
 115 120 125
 Pro Ser Ala Pro Tyr Leu Ser Ser Cys Leu Arg Ser Arg Ser Ala Ile
 130 135 140
 Arg Ser Gln Gly Arg Ser Thr Ala Pro Ser Ala Gly Arg Pro Ala Met
 145 150 155 160
 Ala Pro Thr Leu Ala Pro Pro Ala Gln Ser His Tyr Ser Gln His Gly
 165 170 175
 Val Leu His Gly Pro Ala Gly Leu Ala Gly Ala Ala Val Leu Gly Ala
 180 185 190
 Ala Pro Gly Leu Trp Leu Pro His Pro His Arg Gln Leu His Arg Gln

10002603.103001

195 200 205
 Pro Gly Phe Ala Ala Glu Asp Ala Leu Gln Gln Gln Phe Ile Pro Asn
 210 215 220
 Asp Ile Pro Ala Met His Asp Leu Glu Ser Asp Glu Leu Arg Ser His
 225 230 235
 Leu Lys Gly Pro Gln His Arg Val Arg Glu Arg Pro His Asn Ala His
 245 250 255
 Pro Leu Arg Ser Pro Ile Gln Asn Thr His Ala Arg Cys Leu Gln Arg
 260 265 270
 His Ser Gly Cys Ala Thr Cys Ala Trp Ser Ser Pro Asp Ser Cys Thr
 275 280 285
 Val Ala Pro Glu Thr Ser Glu Asn Ala Pro Trp Cys Val Leu Pro Gly
 290 295 300
 Leu Gln Gly Val Phe Ala Val Pro Leu Thr Gly Ala Gln Gln Glu Ala
 305 310 315
 His Trp Asp Ala Thr Pro Val Arg Leu Gln Gly Pro Trp Thr Arg Ala
 325 330 335
 Ser Pro Phe Gly Thr Ser Pro Arg Asp Thr Lys Gly Asp Ile Gln Val
 340 345 350
 Arg Asn His Ser Ser Val Arg Leu Val Ser Glu Gly Ser Pro Gly Pro
 355 360 365
 Thr Thr Gly Pro Thr Pro Gly Pro Thr Arg Val Gly Ser Pro Ser Ala
 370 375 380
 Ala Gly Gly Gln Ala Ala Arg Glu Gly Ser Pro Ser Gln Thr Asn Ser
 385 390 395
 Val Ile Thr Thr Cys Ile Ser Glu Thr Leu Asn Ser Ser Trp Arg Phe
 405 410 415
 Glu

<210> 408

<211> 429

<212> PRT

<213> Homo sapiens

<400> 408

Met Gly Ser Asp Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro
 1 5 10 15
 Ser Leu Gly Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala
 20 25 30
 Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr
 35 40 45
 Gly Ser Leu Gly Gly Pro Ala Pro Pro Pro Ala Pro Pro Pro Pro
 50 55 60
 Pro Pro Pro Pro His Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly
 65 70 75 80
 Ala Glu Pro His Glu Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe
 85 90 95
 Ser Gly Gln Phe Thr Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe
 100 105 110
 Gly Pro Pro Pro Pro Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe
 115 120 125
 Pro Asn Ala Pro Tyr Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile

10002603-103001

10002603-103001

130	135	140
Arg Asn Gln Gly Tyr Ser	Thr Val Thr Phe Asp	Gly Thr Pro Ser Tyr
145	150	155
Gly His Thr Pro Ser His	His Ala Ala Gln Phe	Pro Asn His Ser Phe
165	170	175
Lys His Glu Asp Pro Met	Gly Gln Gln Gly Ser	Leu Gly Glu Gln Gln
180	185	190
Tyr Ser Val Pro Pro Pro	Val Tyr Gly Cys His Thr	Pro Thr Asp Ser
195	200	205
Cys Thr Gly Ser Gln Ala	Leu Leu Leu Arg Thr	Pro Tyr Ser Ser Asp
210	215	220
Asn Leu Tyr Gln Met Thr	Ser Gln Leu Glu Cys	Met Thr Trp Asn Gln
225	230	235
Met Asn Leu Gly Ala Thr	Leu Lys Gly His Ser	Thr Gly Tyr Glu Ser
245	250	255
Asp Asn His Thr Thr Pro	Ile Leu Cys Gly Ala Gln	Tyr Arg Ile His
260	265	270
Thr His Gly Val Phe Arg	Gly Ile Gln Asp Val Arg	Arg Val Pro Gly
275	280	285
Val Ala Pro Thr Leu Val	Arg Ser Ala Ser Glu Thr	Ser Glu Lys Arg
290	295	300
Pro Phe Met Cys Ala Tyr	Pro Gly Cys Asn Lys Arg	Tyr Phe Lys Leu
305	310	315
Ser His Leu Gln Met His	Ser Arg Lys His Thr	Gly Glu Lys Pro Tyr
325	330	335
Gln Cys Asp Phe Lys Asp	Cys Glu Arg Arg Phe	Phe Arg Ser Asp Gln
340	345	350
Leu Lys Arg His Gln Arg	Arg His Thr Gly Val Lys	Pro Phe Gln Cys
355	360	365
Lys Thr Cys Gln Arg Lys	Phe Ser Arg Ser Asp	His Leu Lys Thr His
370	375	380
Thr Arg Thr His Thr Gly	Glu Lys Pro Phe Ser	Cys Arg Trp Pro Ser
385	390	395
Cys Gln Lys Lys Phe Ala	Arg Ser Asp Glu Leu	Val Arg His Asn
405	410	415
Met His Gln Arg Asn Met	Thr Lys Leu Gln Leu	Ala Leu
420	425	

<210> 409

<211> 495

<212> PRT

<213> Homo sapiens

<400> 409

Met Ala Ala Pro Gly Ala Arg	Arg Ser Leu Leu Leu Leu Leu Ala
1	5
Gly Leu Ala His Gly Ala Ser	Ala Leu Phe Glu Asp Leu Met Gly Ser
20	25
Asp Val Arg Asp Leu Asn Ala	Leu Leu Pro Ala Val Pro Ser Leu Gly
35	40
Gly Gly Gly Gly Cys Ala Leu	Pro Val Ser Gly Ala Ala Gln Trp Ala
50	55
Pro Val Leu Asp Phe Ala Pro	Pro Gly Ala Ser Ala Tyr Gly Ser Leu
	60

65	70										75					80				
Gly	Gly	Pro	Ala	85	Pro	Pro	Pro	Ala	Pro	Pro	Pro	Pro	Pro	Pro	Pro	His				
Ser	Phe	Ile	Lys	100	Gln	Glu	Pro	Ser	Trp	Gly	Gly	Ala	Glu	Pro	His	Glu				
Glu	Gln	Cys	Leu	115	Ser	Ala	Phe	Thr	Val	His	Phe	Ser	Gly	Gln	Phe	Thr				
Gly	Thr	Ala	Gly	130	Ala	Cys	Arg	Tyr	Gly	Pro	Phe	Gly	Pro	Pro	Pro	Pro				
Ser	Gln	Ala	Ser	145	Ser	Gly	Gln	Ala	Arg	Met	Phe	Pro	Asn	Ala	Pro	Tyr				
Leu	Pro	Ser	Cys	165	Leu	Glu	Ser	Gln	Pro	Ala	Ile	Arg	Asn	Gln	Gly	Thr				
Ser	Thr	Val	Thr	180	Phe	Asp	Gly	Thr	Pro	Ser	Tyr	Gly	His	Thr	Pro	Ser				
His	His	Ala	Ala	195	Gln	Phe	Pro	Asn	His	Ser	Phe	Lys	His	Glu	Asp	Pro				
Met	Gly	Gln	Gln	210	Gly	Ser	Leu	Gly	Glu	Gln	Gln	Tyr	Ser	Val	Pro	Pro				
Pro	Val	Tyr	Gly	225	Cys	His	Thr	Pro	Thr	Asp	Ser	Cys	Thr	Gly	Ser	Gln				
Ala	Leu	Leu	Leu	245	Arg	Thr	Pro	Tyr	Ser	Ser	Asp	Asn	Leu	Tyr	Gln	Met				
Thr	Ser	Gln	Leu	260	Glu	Cys	Met	Thr	Trp	Asn	Gln	Met	Asn	Leu	Gly	Ala				
Thr	Leu	Lys	Gly	275	His	Ser	Thr	Gly	Tyr	Gly	Ser	Asp	Asn	His	Thr	Thr				
Pro	Ile	Leu	Cys	290	Gly	Ala	Gln	Tyr	Arg	Ile	His	Thr	His	Gly	Val	Phe				
Arg	Gly	Ile	Gln	305	Asp	Val	Arg	Arg	Val	Pro	Gly	Val	Ala	Pro	Thr	Leu				
Val	Arg	Ser	Ala	325	Ser	Glu	Thr	Ser	Glu	Lys	Arg	Pro	Phe	Met	Cys	Ala				
Tyr	Pro	Gly	Cys	340	Asn	Lys	Arg	Tyr	Phe	Lys	Leu	Ser	His	Leu	Gln	Met				
His	Ser	Arg	Lys	355	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Asp	Phe	Lys				
Asp	Cys	Glu	Arg	370	Arg	Phe	Phe	Arg	Ser	Asp	Gln	Leu	Lys	Arg	His	Gln				
Arg	Arg	His	Thr	385	Gly	Val	Lys	Pro	Phe	Gln	Cys	Lys	Thr	Cys	Gln	Arg				
Lys	Phe	Ser	Arg	405	Ser	Asp	His	Leu	Lys	Thr	His	His	Arg	Thr	His	Thr				
Gly	Glu	Lys	Pro	420	Phe	Ser	Cys	Arg	Trp	Pro	Ser	Cys	Gln	Lys	Lys	Phe				
Ala	Arg	Ser	Asp	435	Glu	Leu	Val	Arg	His	His	Asn	Met	His	Gln	Arg	Asn				
Met	Thr	Lys	Leu	450	Gln	Leu	Ala	Leu	Leu	Asn	Asn	Met	Leu	Ile	Pro	Ile				
Ala	Val	Gly	Gly	465	Ala	Leu	Ala	Gly	Leu	Val	Leu	Ile	Val	Leu	Ile	Ala				
Tyr	Leu	Ile	Gly	485	Arg	Lys	Arg	Ser	His	Ala	Gly	Tyr	Gln	Thr	Ile	Thr				

<210> 410
 <211> 504
 <212> PRT
 <213> Homo sapiens

<400> 410

Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
 1 5 10 15
 Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp
 20 25 30
 Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
 35 40 45
 Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
 50 55 60
 Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Ala Met Gly Ser Asp
 65 70 75 80
 Val Arg Asp Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly
 85 90 95
 Gly Gly Gly Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro
 100 105 110
 Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly
 115 120 125
 Gly Pro Ala Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro His
 130 135 140
 Ser Phe Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu
 145 150 155 160
 Glu Gln Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln Phe Thr
 165 170 175
 Gly Thr Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro Pro
 180 185 190
 Ser Gln Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala Pro Tyr
 195 200 205
 Leu Pro Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln Gly Tyr
 210 215 220
 Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr Pro Ser
 225 230 235 240
 His His Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro
 245 250 255
 Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val Pro Pro
 260 265 270
 Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln
 275 280 285
 Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr Gln Met
 290 295 300
 Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala
 305 310 315 320
 Thr Leu Lys Gly His Ser Thr Gly Tyr Glu Ser Asp Asn His Thr Thr
 325 330 335
 Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly Val Phe
 340 345 350
 Arg Gly Ile Gln Asp Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu
 355 360 365
 Val Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala

10002603-103007

370 375 380
 Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met
 385 390 395 400
 His Ser Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp Phe Lys
 405 410 415
 Asp Cys Glu Arg Arg Phe Phe Arg Ser Asp Gln Leu Lys Arg His Gln
 420 425 430
 Arg Arg His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg
 435 440 445
 Lys Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr
 450 455 460
 Gly Glu Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys Lys Phe
 465 470 475 480
 Ala Arg Ser Asp Glu Leu Val Arg His His Asn Met His Gln Arg Asn
 485 490 495
 Met Thr Lys Leu Gln Leu Ala Leu
 500

<210> 411
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 411
 Val Leu Asp Phe Ala Pro Pro Gly Ala Ser
 1 5 10

<210> 412
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 412
 Gln Trp Ala Pro Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala
 1 5 10 15

<210> 413
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 413
 Val Leu Asp Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu
 1 5 10 15

10002603.103001